



U.S. Department  
of Transportation

**Federal Transit  
Administration**



# **Approach to Cumulative Effects Analysis for the Lower Manhattan Recovery Effort**

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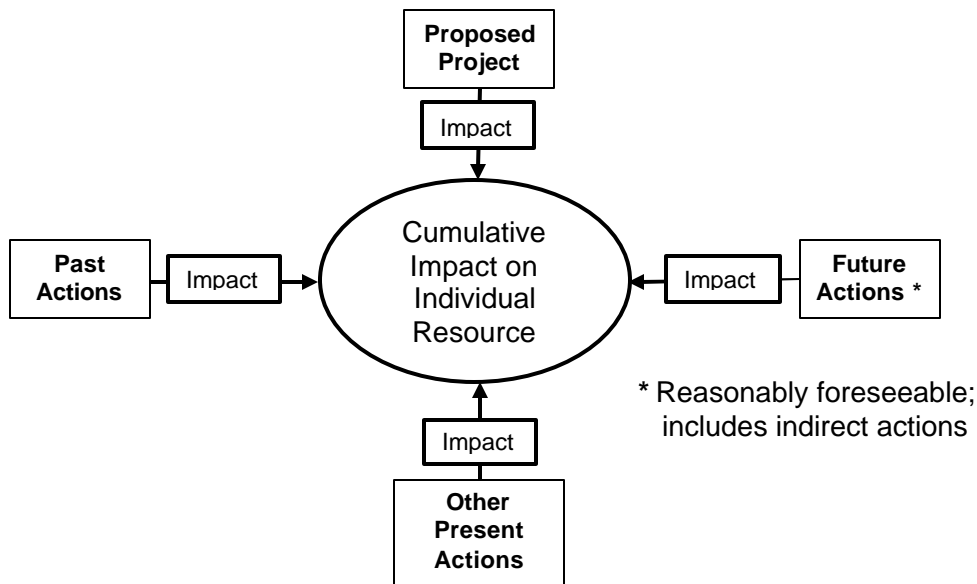
## Executive Summary

The goal of the cumulative effects analysis for the Lower Manhattan Transportation Recovery Projects is to provide decision makers and the public considering the implementation of individual projects with comprehensive information on the combined effects of many actions over time. According to the U.S. Environmental Protection Agency (EPA):

*While impacts can be differentiated by direct, indirect, and cumulative, the concept of cumulative impacts takes into account all disturbances since cumulative impacts result in the compounding of the effects of all actions over time. Thus the cumulative impacts of an action can be viewed as the total effects on a resource, ecosystem, or human community of that action and all other activities affecting that resource no matter what entity (federal, non-federal, or private) is taking the actions. (U.S. EPA, "Consideration Of Cumulative Impacts In EPA Review of NEPA Documents", EPA 315-R-99-002, May 1999.)*

In general terms, cumulative effects may arise from single or multiple actions, and may result in additive or interactive effects. Figure A illustrates the potential sources of impacts associated with both project specific activities and the effects of other projects that must be addressed as part of the cumulative effects analysis.

**Figure A – Sources of Cumulative Impacts**



Source: U.S. DOT, FHWA, "Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process", January 31, 2003.

## **Cumulative Effects Analysis Approach**

The Federal Transit Administration's (FTA) approach to a cumulative effects analysis associated with the restoration and rebuilding of transportation infrastructure in Lower Manhattan can be described as a "*coordinated cumulative effects analysis*." This approach to the cumulative effects analysis would maintain the individual flexibility needed to advance each project as swiftly as possible while providing decision-makers and the public with an understanding of cumulative effects associated with each project. The foundation of this approach is based on two important principles:

- A commitment to the application of a single, consistent framework, methodology and set of assumptions for the evaluation of cumulative effects across projects; and
- Adherence to environmental performance commitments to reduce the potential for adverse impacts across projects, and to lower the potential severity or magnitude of the adverse impacts.

The approach is consistent with the placement of the Lower Manhattan Transportation Recovery Projects on the national project priority list created as a result of the President's September 18, 2002 Executive Order *Environmental Stewardship and Transportation Infrastructure Project Reviews*. On February 27, 2003 U.S. Transportation Secretary Mineta announced the selection of the Lower Manhattan Recovery Projects as part of a group of nationally recognized transportation projects designated to receive high-level attention from a Cabinet-level Task Force to avoid potential associated with environmental issues. This designation as priority projects will help to expedite the rebuilding of the transportation system in the aftermath of the events on September 11, 2001 to restore lost infrastructure and replace functionality. The proposed approach for the *coordinated cumulative effects analysis* assumes that each transportation project will have the ability to advance at its own pace, and supports the advancement of the first three projects identified in the February 6, 2003 letter from New York Governor George Pataki: the World Trade Center Transportation Hub (PANYNJ); the Fulton Street Transit Center (MTA); and the South Ferry Subway Terminal (MTA).

The approach will be coordinated under the *Memorandum of Understanding – Environmental Coordination and Review Among the Federal Partners*, which was signed by the participating federal agencies in August of 2002. The key features and benefits of the *coordinated cumulative effects analysis* are:

- **Promoting Efficient Project Delivery and Environmental Stewardship** - The *coordinated cumulative effects analysis* approach creates an opportunity for environmental stewardship through the comprehensive and proactive consideration of environmental factors, while incorporating measures to streamline both the environmental process and overall project delivery. This approach enhances environmental management principles in the traditional "identify-impact-mitigate" framework for the NEPA process, by proactively managing the avoidance and reduction of impacts through the adoption of environmental performance commitments. These environmental performance commitments, known as EPCs, would involve environmentally-friendly design features or construction practices that would preserve the capacity of the environment to accommodate implementation of all of the transportation recovery projects. The EPCs would sustain or enhance the long-term capacity of the resources of concern in Lower Manhattan (e.g. access and circulation, air quality, noise, cultural resources, and economic factors) to absorb changes and impacts associated with transportation project delivery, and would maintain or improve their condition.
- **Advancing Each Project Independently, but in a Coordinated Manner** - The proposed *coordinated cumulative effects analysis* is a "building-block" approach, managed to reduce redundancy and foster consistency across projects, and to ensure that opportunities for reductions in potential adverse cumulative effects are made on each and every project. This is

achieved through the progressive completion of the cumulative effects analysis on a project-by-project basis using a consistent set of analysis assumptions and methodologies in a common evaluation framework. Project sponsors would commit to the framework, assumptions, and methodologies in advance of initiating the NEPA process. As each of the projects matures through the NEPA process, the knowledge gained will be incorporated as part of the cumulative effects analysis for each of the subsequent projects. As each of the Lower Manhattan Transportation Recovery Projects is completed or as each analysis addresses the environmental resource areas for cumulative effects, the identified associated impacts will be incorporated into the analysis for future projects as “background impacts.” This will allow for progressive, up to date, real-time cumulative effects analysis.

- **Focusing Attention on Critical Environmental Factors** - The cumulative effects analysis will be focused only on those environmental areas identified as subject to potentially significant adverse cumulative effects. In a coordinated effort, the Federal partners and project sponsors identified five key environmental assessment areas as having the highest potential: air quality, access and circulation, noise and vibration, cultural and historic resources, and economic factors. The local project sponsors are advancing the development of the specific technical methodologies to support the *coordinated cumulative effects analysis* during the NEPA review of each project, in cooperation with FTA and EPA. The technical methodologies will address data sources, assumptions, analytical parameters, analysis characteristics, and approach.

## **Next Steps and Recommendations**

The following actions are required to advance the *coordinated cumulative effects analysis* for the Lower Manhattan Transportation Recovery Projects:

- Finalize implementation of the approach with project sponsors, including the application of technical methodologies and the adoption of environmental performance commitments (EPCs) for each of the five environmental areas of concern (air quality, noise and vibration, access and circulation, cultural and historic resources, and economic factors).
- Continue coordination with EPA and the Federal partners to assess progress on implementation of the approach.
- Provide technical support to project sponsors during advancement of the environmental process for Fulton Street Transit Center “demonstration” project, and other projects as they advance.
- Conduct a Peer Review of the *coordinated cumulative effects approach* during implementation.
- Document the demonstration project methodologies and process for use by future projects.

## **1.0 Introduction**

### **1.1 Overview and Purpose**

The Federal Transit Administration (FTA) Lower Manhattan Recovery Office (LMRO) is charged with oversight of the restoration and reconstruction of transportation infrastructure damaged or otherwise adversely impacted by the September 11, 2001 terrorist attacks. The Lower Manhattan recovery effort includes a number of identified transportation improvement projects in the affected area. The LMRO is responsible for ensuring that project planning and development activities for these projects are completed in accordance with the intent and requirements of the National Environmental Policy Act (NEPA) and related environmental laws and regulations.

The FTA and representatives of other Federal agencies have formalized their commitment to prevent project delays by partnering to develop environmentally responsible projects using a streamlined yet environmentally responsible process that completes the review of projects under NEPA and associated laws. The basis for this coordinated and streamlined project delivery process is provided by the *Memorandum of Understanding – Environmental Coordination and Review Among the Committee (ECR MOU)*, dated August, 2002 (Appendix A). The agencies that are party to the MOU are as follows: Federal Emergency Management Agency, Federal Transit Administration, Federal Highway Administration, US Department of Housing and Urban Development, US Environmental Protection Agency, US Army Corps of Engineers, US Coast Guard, US Fish and Wildlife Service, National Marine Fisheries Service, New York State Urban Development Corporation d/b/a the Empire State Development Corporation, and the Lower Manhattan Development Corporation. These Federal partners have committed to expediting environmental reviews for projects associated with the recovery effort by adhering to specific review periods during the environmental process.

In accordance with the agreement between FTA and the Federal Emergency Management Agency (FEMA) regarding administration and oversight of the federal funds in the Supplemental Appropriations Act, FTA is the lead federal agency responsible for coordinating the environmental review of \$4.55 billion of transportation restoration and improvement projects and programs under NEPA and related laws and regulations. In a letter dated November 18, 2002, FEMA transitioned the Federal leadership for environmental management to FTA as part of the transition from the initial disaster recovery phase to the long-term project recovery phase (Appendix B). The NEPA review and related environmental laws and regulations apply to projects to replace, rebuild and enhance transportation infrastructure in Lower Manhattan under the \$4.55 billion *Supplemental Appropriations Act for Further Recovery From and Response To Terrorist Attacks on the United States* that was signed into law (P.L. 107-206) by President Bush in August 2, 2002.

Through a coordinated process, the Transportation Working Group, a group of local decision-makers including the State of New York, the City of New York, the Metropolitan Transportation Authority, the Port of New York and New Jersey and the Lower Manhattan Development Corporation, set forth a list of three priority projects and other additional projects that were formally identified by New York Governor George Pataki. (see Appendix C - February 6, 2003 letter from Governor Pataki to FEMA and FTA). These three projects (and sponsoring agencies) are as follows :

- The Fulton Street Transit Center (MTA)
- The South Ferry Subway Terminal (MTA)
- The World Trade Center Transportation Hub (PANYNJ)

On February 27, 2003, U.S. Transportation Secretary Norman Y. Mineta announced the selection of the Lower Manhattan Transportation Recovery Projects as part of a group of nationally recognized transportation projects designated to receive high-level attention under President Bush's September 18, 2002 Executive Order 13274, *Environmental Stewardship and Transportation Infrastructure Project Review*. (Appendix D). This designation as priority projects will help expedite the rebuilding of the transit system damaged in the terrorist attacks as these projects advance through the environmental review process under NEPA. The Executive Order calls for a Cabinet-level task force that is chaired by Secretary Mineta and includes representation such as the Administrator of the Environmental Protection Agency, Chair of the Advisory Council on Historic Preservation, Secretary of Agriculture, Secretary of Commerce, Secretary of Interior, and Chair of the Council on Environmental Quality. The task force will work to avoid project delays associated with environmental issues at the regional/local level for priority projects.

To expedite the recovery effort and accommodate the mix of federal funding sources, FTA is committed to streamlining the project delivery process while promoting environmental stewardship. This streamlined project delivery process, illustrated in Figure 1, is to be applied separately to each of the Lower Manhattan Recovery Transportation Projects. The process is predicated on the issuance of a single project grant from FTA to cover the project delivery from inception to construction. This single grant would identify a maximum level of federal funding and specific funding levels to be "drawn-down" by grantee as eligible costs are incurred for approved budget grant items. This process for the release of funding differs from the conventional FTA project delivery process for major capital investments by replacing multiple grants with a single grant instrument.

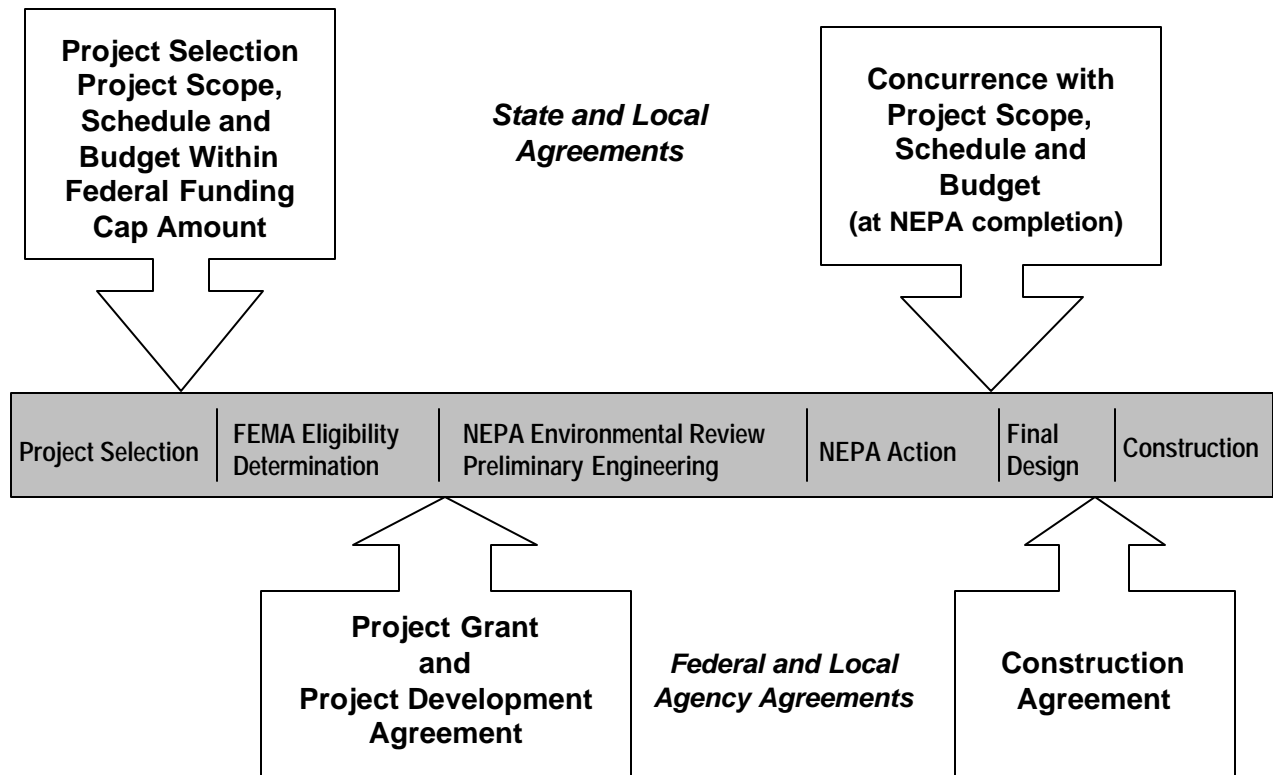
Due to the confluence of projects that are likely to be underway during the rebuilding of Lower Manhattan, a key issue in the consideration of environmental consequences during the NEPA review process for each project will be the evaluation of cumulative effects. This document has been prepared by the FTA to outline how the analysis of cumulative effects will be addressed during environmental review under NEPA for the restoration, reconstruction, and improvement of transportation projects in Lower Manhattan.

This document represents the first step in formalizing the proposed approach to address cumulative effects for the Lower Manhattan Recovery Projects. It is a working document that will form the basis for further coordination and discussion among the Federal Partners, local agencies, and sponsors of transportation projects funded by FTA as they develop and finalize an approach that consistently will be applied by the project sponsoring agencies. It outlines several fundamental findings based on coordination to date that serve as a foundation upon which to proceed with a *coordinated cumulative effects analysis*:

- For environmental review purposes, the "baseline" to be used for the "No Build" comparison required under NEPA and for the cumulative effects analysis will be defined as the existing conditions as of September 10, 2001. This baseline may be modified for analysis of construction impacts for five specific areas of concern (air quality, access and circulation, noise and vibration, cultural and historic resources, and economic factors) on an as needed basis.
- The transportation projects advanced as part of the Lower Manhattan recovery effort will apply a consistent approach for the evaluation of cumulative effects, based upon an adopted common approach, framework, and methodologies pre-approved by FTA in consultation with Federal partners and project sponsors.
- When applicable, each transportation project will address cumulative effects as part of its own independent NEPA review process, based upon the baseline and any other reasonably foreseeable projects that either have advanced, or are substantively advancing, through the project development process.



**Figure 1 - Lower Manhattan Recovery Effort Project Delivery Process**



### Key Milestones for Each Project

**Eligibility Determination by FTA and FEMA:** As part of review and acceptance of each project, must determine if project meets eligibility for FEMA assistance.

**Project Development Agreement between FTA and Project Sponsor:** Agreement addressing environmental action necessary, project scope, schedule for project development and implementation, initial project budget, maximum amount of federal funding, and project management plan.

**Single Project Grant from FTA:** Single grant identifying a maximum level of federal funding and specific funding levels are available to be "drawn-down" by grantee as eligible costs are incurred for approved budget grant items.

**Completion of NEPA and Preliminary Engineering and Concurrence of Governor and Transportation Working Group:** Before FTA issues its environmental determination, need confirmation of project scope and budget from State and Local officials, with particular concern if project budget and federal funding request change from Project Development Agreement.

**Independent Cost Estimate:** FTA may decide to engage a second project management oversight review and an independent cost estimate during final design and prior to Construction Agreement.

**Construction Agreement between FTA and Project Sponsor:** Agreement identifying final project scope, baseline schedule, baseline cost estimate, maximum amount of federal funding, additional funding sources if necessary, protocols for project management and oversight, and environmental mitigation provisions.

- The cumulative effects analysis will be focused on those environmental factors of concern that have been identified as having significant potential for adverse cumulative effects. These are: air quality, access and circulation, noise and vibration, cultural and historic resources, and economic factors.
- A foundation of the cumulative effects analysis for these environmental factors of concern will be the adherence of the project sponsors to a set of adopted environmental performance commitments (EPCs) to lower the potential for adverse environmental impacts, thereby lessening the potential for each project to contribute to the overall adverse cumulative effects.

These findings are presented and discussed in more detail in the subsequent sections of this document.

It should be noted that the approach, framework and methodologies for the *coordinated cumulative effects analysis* are one component of the FTA's Environmental Management Oversight Plan for the Lower Manhattan Transportation Recovery Projects. The FTA-LMRO environmental oversight responsibilities are illustrated in Figure 2. As illustrated in Figure 2, FTA is performing three strategic environmental oversight functions: Customized Program Management and Coordination, Efficient Project Delivery, and Risk-Based Oversight. Under its goal of promoting efficient project delivery as part of its responsibilities in providing technical guidance, FTA is leading the development of a *coordinated cumulative effects analysis* framework to guide each of the Lower Manhattan Recovery Transportation Projects that restore, replace, and enhance the rebuilding of transportation infrastructure. A primary goal is to ensure that the *coordinated cumulative effects analysis* is an integrated part of FTA's overall monitoring and evaluation framework conducted by LMRO, so that outcomes of both the environmental review and the accompanying cumulative effects analysis will be factored into project decision-making.

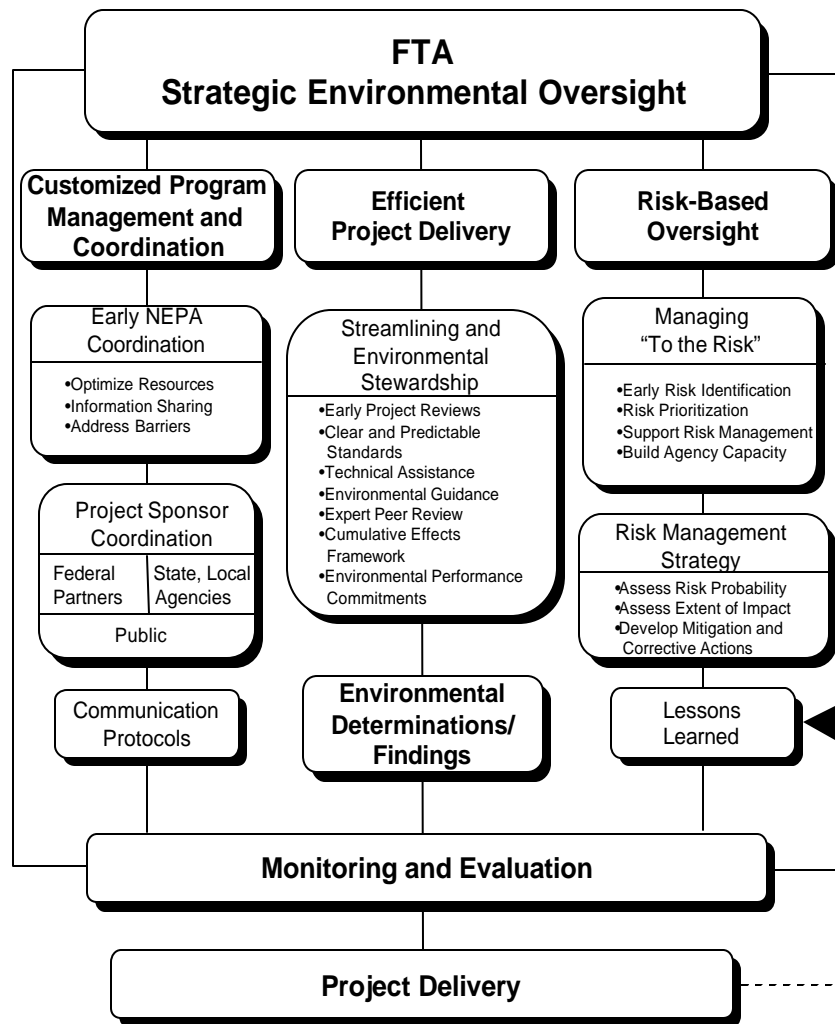
## **1.2 Document Organization**

This document consists of the following sections:

- Section 1.0 – Introduction
- Section 2.0 – Background and Context
- Section 3.0 – Coordinated Cumulative Effects Analysis for Lower Manhattan Recovery Transportation Projects
- Section 4.0 – Implementation Roles and Responsibilities
- Section 5.0 – Next Steps and Recommendations
- Appendix A – August 2002 Memorandum of Understanding – *Environmental Coordination and Review Among the Federal Partners* (ECR MOU)
- Appendix B – November 18, 2003 Federal Emergency Management Agency (FEMA) Letter Regarding Transition of EPRC to FTA
- Appendix C – February 6, 2003 Governor George E. Pataki Letter to Mr. Allbaugh and Ms. Dorn on Recommended Projects for the Lower Manhattan Recovery Effort.
- Appendix D – February 27, 2003 U.S. Transportation Secretary Norman Y. Mineta Press Release Placing Lower Manhattan Recovery Projects on Priority List
- Appendix E – Stakeholder Environmental Review Commitments and Responsibilities

Section 1.0, Introduction, describes the project background and the purpose of this document. Section 2.0 frames the challenges and issues faced by FTA in addressing cumulative effects during the environmental review of proposed transportation project restoration or improvements in Lower Manhattan. Section 3.0 presents the proposed approach to the cumulative effects analysis for the Lower Manhattan

**Figure 2 - FTA Strategic Environmental Oversight**



Recovery Transportation Projects in terms of the relationship to the overall NEPA process, the specific analysis of the key areas in which cumulative effects are a concern, and the development of a “demonstration” project for the Fulton Street Transit Center. The roles of the major stakeholders in advancing the reconstruction and restoration of lost transportation functions and infrastructure in terms of their NEPA responsibilities and cumulative effects analysis are outlined in Section 4.0. Section 5.0 summarizes the next steps required to advance implementation of the proposed approach, with particular attention to issues requiring further coordination among stakeholders.

The Appendices contain supporting background materials leading to the development of the approach for *coordinated cumulative effects analysis*. The ECR MOU is included in Appendix A, and the FEMA letter transitioning the Federal environmental leadership to FTA is in Appendix B. Appendix C includes a letter from Governor George Pataki identifying a list of projects recommended for the Lower Manhattan recovery effort. Appendix D includes a Press Release by U.S. Transportation Secretary Norman Y. Mineta placing Lower Manhattan Recovery Transportation Projects on the Priority List. Appendix E describes in more detail stakeholder environmental review commitments and responsibilities.

## **2.0 Background and Context**

This section:

- describes requirements for cumulative effects analysis under NEPA and the implications of these requirements for the Lower Manhattan recovery effort;
- documents the range of cumulative effects analysis approaches that were considered; and
- recommends an approach for the Lower Manhattan recovery effort.

### **2.1 Cumulative Effects Analysis Requirements**

The analysis of potential cumulative effects is a crucial element in completing the NEPA environmental review process for the projects associated with the restoration, rebuilding and enhancement of transportation infrastructure in Lower Manhattan. The basic concept of a cumulative effects analysis is to identify and consider the total effects of many actions over time that would be missed by evaluating each action individually. The goal of cumulative effects analysis is to provide decision makers and the public considering the implementation of individual projects with comprehensive information on the potential changes in the affected environment conditions resulting from the combined, incremental impacts of the project action when added to other past, present, and reasonably foreseeable future actions (40 CFR 1508.7). According to the U.S. EPA:

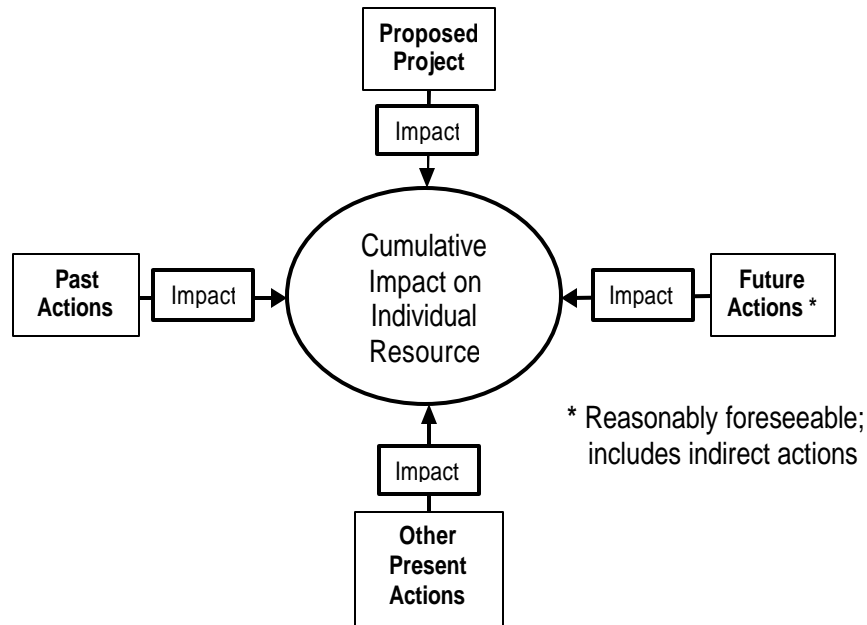
*While impacts can be differentiated by direct, indirect, and cumulative, the concept of cumulative impacts takes into account all disturbances since cumulative impacts result in the compounding of the effects of all actions over time. Thus the cumulative impacts of an action can be viewed as the total effects on a resource, ecosystem, or human community of that action and all other activities affecting that resource no matter what entity (federal, non-federal, or private) is taking the actions. (U.S. EPA, "Consideration Of Cumulative Impacts In EPA Review of NEPA Documents", EPA 315-R-99-002, May 1999.)*

In general terms, cumulative effects may arise from single or multiple actions, and may result in additive or interactive effects. According to a recent U.S. Department of Transportation, Federal Highway Administration document, "Interim Guidance: Questions and Answers Regarding Indirect and Cumulative Impact Considerations in the NEPA Process" (January 31, 2003):

*Cumulative impacts include the total of all impacts to a particular resource that have occurred, are occurring, and will likely occur as a result of any action or influence including the direct and reasonably foreseeable indirect impacts of a Federal activity. Accordingly, there may be different cumulative impacts on different environmental resources.*

Figure 3 (from the 2003 FHWA document noted above) illustrates the potential sources of impacts associated with both project specific activities and the effects of other projects that must be addressed as part of the cumulative effects analysis.

Figure 3 – Sources of Cumulative Impacts



Source: U.S. DOT, FHWA, "Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process", January 31, 2003.

## 2.2 Cumulative Effects Analysis - Approaches Considered

The development of a cumulative effects analysis approach for the Lower Manhattan recovery effort presents a number of unique challenges caused by the urgency of the rebuilding effort and the large number of projects and agencies. These challenges are defined by the following needs and conditions:

- **Maintain the autonomy of individual projects, as well as the flexibility to advance projects independently, but in a coordinated manner.** The initial transportation projects advancing under the Lower Manhattan recovery effort include the World Trade Center Transportation Hub (PANYNJ); Fulton Street Transit Center (MTA); and South Ferry Subway Terminal (MTA). These three projects are located in the same physical area, and are estimated to be complete between 2007 and 2009. In addition, there are other potential projects identified in Governor Pataki's letter (Appendix C) that would also be implemented within the same timeframe. Thus, the cumulative effects analysis framework must provide the flexibility to advance individual projects as each comes "on line". Yet, the analysis also must provide a mechanism for the systematic evaluation of the potential environmental effects in a comprehensive manner for subsequent projects.
- **Focus the environmental evaluation resources on those human and natural factors identified as potentially subject to significant adverse impacts as a result of cumulative effects.** A large volume of environmental analyses will be conducted as the transportation projects advance through the NEPA process. Consequently, the management and focusing of analysis of cumulative effects on the areas most likely to affect decision-making will be an important component of promoting understanding of the trade-offs and choices by decision-

makers and the public. Five areas of concern for cumulative effects analysis were identified during the initial FEMA scoping process as part of early NEPA activities for the initial disaster recovery phase. Following a meeting with the U.S. EPA on December 17, 2002, FTA subsequently refined and confirmed five areas of concern as: air quality, noise and vibration, access and circulation, cultural and historic resources, and economic considerations.

- **Meet the intent of NEPA with respect to cumulative effects analysis.** Although each project will advance independently, to meet the spirit and requirements under NEPA, each project must individually and collectively address cumulative effects.

FTA is committed to the following actions to manage the cumulative effects analysis to meet the needs and conditions stated above:

- **Early, proactive and continuous coordination with project sponsors and cooperating agencies.** Efficiencies in the environmental review process can be gained through early, focused coordination with project sponsors, cooperating agencies, and stakeholders to ensure that they understand roles and responsibilities with respect to the NEPA review process and the cumulative effects analysis. This shared understanding is essential to ensuring that the selected approach to cumulative effects analysis is coordinated and implemented across all transportation projects, irrespective of sponsoring agency.
- **Stewardship and streamlining through a common analysis framework.** A common analysis framework for the evaluation of cumulative effects across projects has the potential to be a valuable stewardship and streamlining tool. Stewardship and streamlining can be promoted by reducing the duplication of the analysis framework at the outset of each project, and by limiting the learning curve for both project sponsors and reviewers through standardization of the technical methodologies. An added benefit would be the familiarity provided for decision-makers and the general public. To be effective, there must be clear direction, widespread consensus and rigorous adherence to a standardized analysis framework among all the stakeholders.
- **Integrate cumulative effects analysis with NEPA process.** To be most effective, the cumulative effects analysis needs to be fully integrated into the NEPA decision-making process, and the timing of the cumulative effects analysis must be consistent with the overall timing of the NEPA project review.
- **Incorporate and enforce Environmental Performance Commitments.** The incorporation of environmental performance commitments within the cumulative effects analysis approach would potentially avoid and reduce adverse impacts, and provide flexibility for project sponsors to advance their projects in a streamlined environmental review process and fulfill environmental stewardship objectives. Examples of environmental performance commitments include the use of ultra low sulfur fuel in off-road construction vehicles, recycling of construction material and waste, "green" design of buildings, and implementation of other environmentally-friendly techniques.

Three conceptual approaches to address the cumulative effects analysis were considered:

- A. **Option 1** - Comprehensive cumulative effects analysis of priority transportation projects as a precursor to the advancement of any individual project;
- B. **Option 2** - Independent cumulative effects analysis on a project-by-project basis; and
- C. **Option 3** - Coordinated cumulative effects analysis across individual projects.

The relative advantages and shortcomings of each of these concepts are discussed below. **FTA has elected to proceed with Option 3 - coordinated cumulative effects analysis.** This approach provides the flexibility to advance each project expeditiously in accordance with its own unique schedule, while still maintaining analytical consistency across projects. The reasons for this recommendation are detailed below. Table 1 compares the advantages and disadvantages of the three approaches.

**Table 1 - Summary of Advantages and Disadvantages By Option**

<b>Options Considered for Cumulative Effects Analysis Approach</b>	<b>Advantages</b>	<b>Disadvantages</b>
Option 1 – Comprehensive Cumulative Effects Analysis	<ul style="list-style-type: none"> <li>• Analysis completed all at once.</li> <li>• Single methodology and set of assumptions ensure compatibility and comparability of findings.</li> <li>• A single analysis review for decision-makers and the public.</li> <li>• Early identification of opportunities to reduce adverse impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• Delay in initial project start-up.</li> <li>• Timing is premature.</li> <li>• Lack of data availability and accuracy with respect to both project descriptions and potential impacts.</li> <li>• Limited shelf life could cause delays in projects as updates are completed.</li> </ul>
Option 2 – Independent Cumulative Effects Analysis	<ul style="list-style-type: none"> <li>• Projects can start immediately.</li> <li>• Uses most current data and assumptions.</li> <li>• Maintains total project autonomy.</li> </ul>	<ul style="list-style-type: none"> <li>• Variation in analysis and lack of comparability.</li> <li>• Difficulty for public and decision-makers to assess cumulative effects.</li> <li>• Greatest potential to delay decision-making.</li> <li>• Increased potential to miss opportunities to reduce environmental impacts.</li> </ul>
Option 3 – Coordinated Cumulative Effects Analysis	<ul style="list-style-type: none"> <li>• No delay in project start-up – each can proceed at own pace.</li> <li>• Common methodologies and assumptions ensure compatibility.</li> <li>• Decision-makers and the public provided with real time, accurate information.</li> <li>• Early identification of opportunities to reduce adverse impacts.</li> <li>• Can more easily accommodate the addition and/or revision of a project</li> </ul>	<ul style="list-style-type: none"> <li>• Requires highest degree of interagency coordination.</li> <li>• Some loss of independent project evaluation.</li> <li>• Requires higher degree of oversight.</li> <li>• Slightly limits the flexibility of decision makers as a project moves forward at its own pace.</li> </ul>

### **A. Option 1 - Comprehensive Cumulative Effects Analysis**

This concept involved the completion of a single, comprehensive cumulative effects analysis as a baseline document that would be incorporated by reference into subsequent NEPA documents for each of the individual projects whether it is the Fulton Street Transit Center, South Ferry Subway Terminal, World Trade Center Transportation Hub, or other subsequent transportation projects. The cumulative impact analysis would be completed “up-front” prior to the advancement of the NEPA process for each individual project. Projects would only complete the NEPA process after the comprehensive cumulative effects analysis was completed. No project would commence construction until after the comprehensive cumulative effects analysis for all projects was completed.

The advantage of this approach is that a single, cumulative effects analysis would be completed using a common set of methodologies and assumptions, thus ensuring full comparability and consistency in data. Another advantage is that decision-makers and the public would have access to a comprehensive analysis, all in one document that could be used as a reference as each project subsequently entered the NEPA process. Lastly, the approach provides flexibility by looking at analyses comprehensively and in minimizing any overall adverse impacts. Disadvantages to this approach relate to the accuracy of the data and the level of project definition available at this time. This disadvantage could result in delays in project delivery of any of the three projects or other projects caused first by the delays inherent in collecting and awaiting the receipt of data, and second by the constant need to update, adjust and revise the analysis to reflect changes in project definition and assumptions.

In coordination with EPA and project sponsors, FTA elected not to pursue this approach for the following reasons:

- The difficulty inherent in deciding which projects are foreseeable and should be included and which projects should not be included in the analysis due to the changeable nature of local priorities and decision-making;
- The lack of data available regarding the nature, extent, and timing of each project, and the propensity of the project definitions to change over the course of the project development process;
- The limited “shelflife” of the analysis, due to the volatility of the assumptions that would need to be made at this time, would be inconsistent with both streamlining and stewardship objectives; and
- The limitations of a “one-time-look” both to meet the flexibility required to implement the projects in a timely manner, as well as the potential for the completed analysis to inaccurately reflect the actual cumulative effects due to changes in project definition and sequencing as projects continue to move towards implementation.

## **B. Option 2 - Independent Cumulative Effects Analysis**

Under this option, each project whether it is the Fulton Street Transit Center, South Ferry Subway Terminal, World Trade Center Transportation Hub, or other subsequent transportation projects, would be responsible for developing and completing its own cumulative effects analysis, independent of the analyses underway for other projects. Using this approach, each cumulative effects analysis could be tailored to the specific conditions of each project, and the background assumptions formulated on a case-by-case basis, at the time the analysis is necessary.

The advantage of this approach is that the cumulative effects analysis would be conducted using the most current information available, tailored to the specific conditions at the time of the analysis. This approach would allow the use of the most “current” data and assumptions, although they would likely vary from project to project. It is this variation in data and the cumulative effects analysis among the projects that is the greatest disadvantage of this approach. As a result of the variable assumptions and methodologies employed, it would be difficult for decision-makers, reviewing agencies, and the public to make comparisons among the projects, to understand the trade-offs to be made, and to assimilate the implications of progressive impacts to the environment.

FTA elected not to pursue this option any further at this time, as a result of preliminary coordination with EPA and project sponsors. The reasons for this determination are as follow:



- Of the options considered, Option 2 has the greatest risk of project delay due to the increased potential for confusion among agency reviewers, decision-makers and the public;
- Under this option, because of the lack of a standardized methodology and assumptions, there is a greater potential that supplemental analyses would be required to make the project data comparable to the information provided on previous projects, potentially lengthening the environmental review process; and
- Because there is no provision for a common methodology that promotes a comprehensive understanding of the cumulative effects, the potential to miss opportunities to reduce adverse cumulative effects is greater, as opportunities to reduce impacts could be precluded before the effects are clearly known.

### **C. Option 3 - Coordinated Cumulative Effects Analysis**

Option 3 would entail management of the cumulative effects analysis to foster consistency across projects, and to ensure that opportunities for reductions in potential adverse cumulative effects are made on each and every project. Under this approach, FTA, working in concert with EPA and in coordination with Federal Partners and project sponsors, would develop a standardized approach and guidance for the cumulative effects analysis. The cumulative effects analysis for each project would be completed sequentially on a project-by-project basis as part of the overall NEPA review for each individual project, but in accordance with a single evaluation framework composed of a consistent set of analysis assumptions and common methodologies. Project sponsors of each of the three transportation projects (World Trade Center Transportation Hub; Fulton Street Transit Center; and South Ferry Subway Terminal) and other subsequent projects would commit to the methodology in advance of initiating the NEPA process. This approach would be supplemented by the agreement of the project sponsors to incorporate into their project development process “environmental performance commitments.” These environmental performance commitments would reduce the potential for adverse impacts across projects, and lower the potential severity or magnitude of the impacts. Environmental performance commitments would include environmentally friendly construction or design features or specifications, and would serve to preserve environmental capacity to absorb impacts associated with all projects by avoiding impacts before they occur.

The advantage of this approach is that projects would be able to proceed at their individual pace, but in a manner that would allow for comparability across projects. This comparability would both facilitate wider consideration of cumulative effects analysis during decision-making, as well as the monitoring of the cumulative effects as each project comes on line. In addition, the single, consistent framework, methodology and set of assumptions, combined with the environmental performance commitments, will function to reduce the possibility that opportunities to reduce cumulative effects will be overlooked or precluded. The potential disadvantages of this approach relate to oversight and monitoring, as sizeable deviations by any individual project from either the standardized methodology or the environmental performance commitments would undermine the effectiveness of the approach.

FTA has elected to pursue Option 3, *Coordinated Cumulative Effects Analysis*, for the restoration and rebuilding of transportation infrastructure in Lower Manhattan. This option has the greatest potential to meet the project delivery streamlining objectives for the Lower Manhattan recovery effort without compromising environmental stewardship objectives.

The cornerstone of the FTA approach is the development of and agreement to a common framework and methodology for the evaluation of cumulative effects that will be used consistently for all FTA sponsored projects completed as part of the Lower Manhattan recovery effort. The adherence to a single, common

framework would achieve the following objectives important to the timely restoration and delivery of reconstructed and enhanced transportation improvements in Lower Manhattan:

- Each project would have the flexibility to advance independently at its own pace, unencumbered by “attachment” to other projects that could cause delays.
- The evaluation of cumulative effects would be based on the most current information available at the time each project was ready to advance, and each project would build on the findings of the previous cumulative effects analysis so that emphasis could be placed on the issues that are truly of concern, thereby streamlining the analysis, ensuring that resources are appropriately focused, and environmental performance commitments are implemented.
- The use of a single, coordinated approach to cumulative effects analysis on all FTA projects would facilitate the understanding and comparison of the cumulative effects across projects, eliminating the uncertainties that could be caused as a result of unique, one of a kind, analysis specific to individual projects.
- Because the approach would be consistent from project to project, the learning curve required for agency review would be reduced, thereby streamlining the environmental review process.

Equally important to the common methodology is the incorporation of and adherence to environmental performance commitments during the NEPA process and throughout the project development and delivery process. Through the incorporation of these principles, it is possible to systematically reduce the adverse environmental effects by avoiding, reducing or eliminating impacts at every possible instance. An added advantage would be to preserve the capacity of the environment to absorb the adverse effects of project implementation, ensuring that opportunities for environmental benefits are not overlooked or precluded through systematically lowering the potential for impact, project by project.

## 3.0 Coordinated Cumulative Effects Analysis for the Lower Manhattan Recovery Transportation Projects

This section discusses the *coordinated cumulative effects analysis* for the Lower Manhattan Recovery Transportation Projects in terms of the following:

- Key Principles and Features of the Coordinated Cumulative Effects Analysis
- NEPA Review and Cumulative Effects Analysis Process Overview
- Demonstration Project - Fulton Street Transit Center
- Coordinated Cumulative Effects Analysis - Technical Approach and Methodologies

### 3.1 Key Principles and Features of the Coordinated Cumulative Effects Analysis

The FTA's approach of a *coordinated cumulative effects analysis* for the restoration and rebuilding of transportation infrastructure in Lower Manhattan would maintain the individual flexibility needed to advance each project as quickly as possible while providing decision-makers and the public with an understanding of cumulative effects associated with each project. The foundation of this proposed approach is based on two important principles:

- A commitment to the application of a single, consistent framework, methodology and set of assumptions for the evaluation of cumulative effects across projects; and
- Adherence to environmental performance commitments to reduce the potential for adverse impacts across projects, and to lower the potential severity or magnitude of the adverse impacts.

The key features of the *coordinated cumulative effects analysis* are:

- **Promoting Efficient Project Delivery and Environmental Stewardship** - The *coordinated cumulative effects analysis* approach creates an opportunity for environmental stewardship through the comprehensive and proactive consideration of environmental factors, while incorporating measures to streamline both the environmental process and overall project delivery. This approach enhances environmental management principles in the traditional "identify-impact-mitigate" framework for the NEPA process, by proactively managing the avoidance and reduction of impacts through the adoption of environmental performance commitments. These environmental performance commitments, known as EPCs, would involve environmentally-friendly design features or construction practices that would preserve the capacity of the environment to accommodate implementation of all of the transportation recovery projects. The EPCs would sustain or enhance the long-term capacity of the resources of concern in Lower Manhattan (e.g. access and circulation, air quality, noise, cultural resources, and economic factors) to absorb changes and impacts associated with transportation project delivery, and would maintain or improve their condition.
- **Advancing Each Project Independently, but in a Coordinated Manner** - The proposed *coordinated cumulative effects analysis* is a "building-block" approach, managed to reduce redundancy and foster consistency across projects, and to ensure that opportunities for reductions in potential adverse cumulative effects are made on each and every project. This is achieved through the progressive completion of the cumulative effects analysis on a project-by-project basis using a consistent set of analysis assumptions and methodologies in a common evaluation framework. Project sponsors would commit to the framework, assumptions, and methodologies in advance of initiating the NEPA process. As each of the projects matures through the NEPA process, the knowledge gained will be incorporated as part of the cumulative

effects analysis for each of the subsequent projects. As each of the Lower Manhattan Transportation Recovery Projects is completed or as each analysis addresses the environmental resource areas for cumulative effects, the identified associated impacts will be incorporated into the analysis for future projects as “background impacts.” This will allow for progressive, up to date, current cumulative effects analysis.

- **Focusing Attention on Critical Environmental Factors** - The cumulative effects analysis will be focused only on those environmental areas identified as subject to potentially significant adverse cumulative effects. In a coordinated effort, the Federal partners and project sponsors identified five key environmental assessment areas as having the highest potential: air quality, access and circulation, noise and vibration, cultural and historic resources, and economic factors. The local project sponsors are advancing the development of the specific technical methodologies to support the *coordinated cumulative effects analysis* during the NEPA review of each project, in cooperation with FTA and EPA. The technical methodologies will address data sources, assumptions, analytical parameters, analysis characteristics, and approach.

The potential benefits of the proposed approach include:

- A lasting framework for collaborative problem solving among the participating agencies to meld the traditional NEPA process roles of “proponent” and “reviewer” into a productive partnership with a common goal.
- Transparency among the technical methodology, assumptions, and data requirements to be used throughout the NEPA process for the affected environment, environmental consequences, and cumulative effects analysis.
- Greater certainty in the implementation of future transportation projects to avoid adverse cumulative effects through the early identification and resolution of environmental issues to avoid the loss of resources, as well as reduce the potential for schedule delays and increases in costs.
- Creation of a common data base to be used by project sponsors during the project delivery process so that information, materials and technical knowledge of best practices can be shared across projects, thereby streamlining the analysis process, optimizing economies of scale, and avoiding redundancy of effort. This will also allow for progressive, up-to-date transfer of current information pertaining to the cumulative effects analysis.
- Streamlining the environmental review process through a reduction in the learning curve required for both project sponsors and agency reviewers by adhering to a suite of coordinated technical assessment methodologies familiar to both.
- Environmental stewardship through reduction or avoidance of environmental impacts and preservation of the capacity of the resource to absorb impacts or renew itself through the use of environmental performance commitments into project design and construction practices.

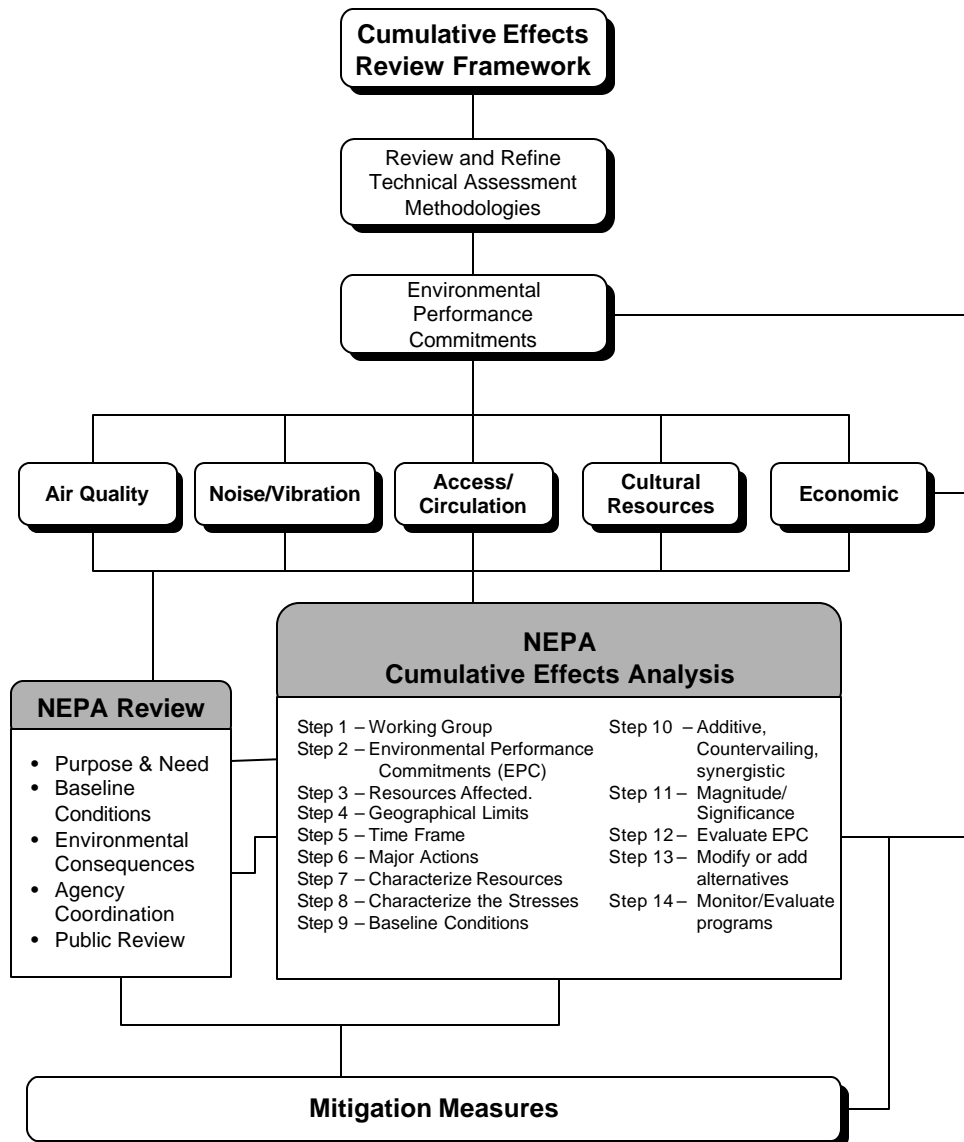
### **3.2 NEPA Review and Coordinated Cumulative Effects Analysis Process**

Figure 4 illustrates the inter-relationship and sequence of the primary components of the *coordinated cumulative effects analysis*. The steps needed to advance the *coordinated cumulative effects analysis* are as follow:

- Finalize and document cumulative effects review framework.
- Draft and coordinate technical assessment methodologies.
- Secure and document environmental performance commitments.

- Convene working groups on each of the technical assessment areas.
- Document technical methodologies for cumulative effects environmental resources of concern (e.g., air quality, noise and vibration, access and circulation, cultural resources, and economic factors).
- Standardize approaches through the NEPA review process.
- Conduct technical evaluations for identified cumulative effects environmental resources of areas of concern.
- Coordinate findings through the NEPA review process.
- Address need for additional mitigation measures.

**Figure 4 – Coordinated Cumulative Effects Analysis Process**



A critical first step to implement the *coordinated cumulative effects analysis* framework, and a primary foundation for its success, is the adoption of a standardized suite of technical assessment methodologies

for each environmental area of concern identified as having a high potential for cumulative effects. Additional discussion of the technical assessment methodologies for each of these areas is included in Section 3.4. As part of the development of these technical assessment methodologies, the baseline conditions for assessment of long-term impacts will be established using conditions as of September 10, 2001, so that the projects can all begin with a common, consistent baseline. If needed, this baseline can be adjusted as necessary on a case by case basis for specific resources, dependent on project timing and sequencing. This is most likely to be required with respect to construction impacts as opposed to long-term impacts.

Following the development of methodologies for these five environmental resource areas, environmental performance commitments (EPCs) will be identified for each area of concern. EPCs are items such as design elements and specifications, construction techniques, or operating procedures that will be documented and committed to by project sponsors at the project outset to lower the potential for adverse cumulative effects. The use of EPCs within each project analysis will facilitate FTA's fulfillment of both environmental stewardship and environmental streamlining objectives by:

- Streamlining the environmental process through avoidance of impacts before they occur; and
- Preserving the environmental capacity, one project at a time, for subsequent projects by ensuring that opportunities to reduce impacts are not missed, thereby reducing the potential for cumulative impacts.

An important element guiding the overall effectiveness of the *coordinated cumulative effects analysis* review framework is the interrelationship with the NEPA review process. The greatest efficiencies in the process can be obtained by coordinating the cumulative effects analysis as an integrated part of the following NEPA process elements:

- Purpose and Need
- Baseline Conditions
- Environmental Consequences
- Agency Coordination
- Public Review

As part of the overall Environmental Management Oversight Plan for the Lower Manhattan Recovery Projects, FTA will provide technical guidance for the development of each of these sections of the NEPA documents, to facilitate consistency across projects. This guidance will be provided through early and continuous coordination with project sponsors as activities progress through the NEPA process. Findings and lessons learned will be recorded and monitored to inform subsequent projects.

### **3.3 Demonstration Project – Fulton Street Transit Center**

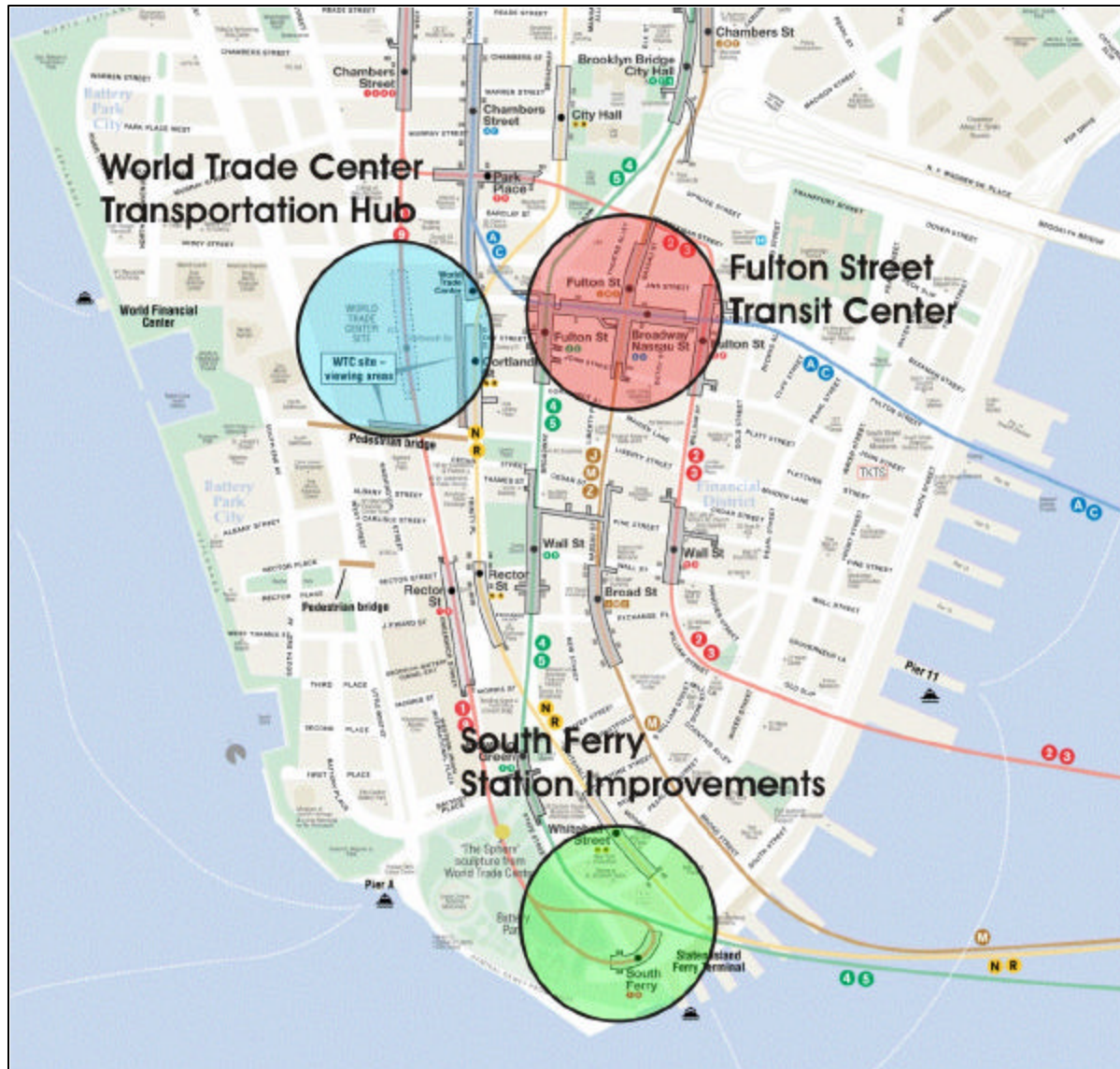
Coordination with Federal partners and project sponsors to develop an approach to complete the *coordinated cumulative effects analysis* for the Lower Manhattan recovery effort, concluded that a “demonstration” project would assist in quickly initiating, developing, refining the approach, methodology and assumptions. Factors considered in the identification of an appropriate demonstration project include the following:

- Clarity of project definition;
- Local commitment and community support;
- Project readiness to proceed;
- Range of potential cumulative effects relating to the five critical environmental resource areas;
- Readiness of the sponsoring agency to implement environmental performance commitments; and

- Readiness of the demonstration project to effectively advance the three priority projects identified in the February 6, 2003 Governor Pataki letter (Appendix C).

Through coordination with EPA and project sponsors, FTA selected the Fulton Street Transit Center as the demonstration project to advance the *coordinated cumulative effects analysis* for Lower Manhattan transportation projects. Figure 5 shows the location of the Fulton Street Transit Center project and other priority transportation projects.

**Figure 5 – Location of Priority Transportation Projects**



The Fulton Street Transit Center project entails a rehabilitated, reconfigured, and enhanced multi-level, underground complex of subway stations serving nine different lines, with improved platforms, mezzanines and connection corridors and a new central concourse with a new above-ground presence.

Over 225,000 movements (passengers entering, exiting, or transferring) are served by these subway stations daily. In addition, the proposed design for this complex will extend westward one block underneath Dey Street to Church Street via a new underground pedestrian passageway providing a new link to two additional subway lines. The estimated cost is \$750 million in year of construction dollars and completion is expected by year 2007.

The project, sponsored by MTA/NYCT, was selected for the following reasons:

- The design scope and project description for the Fulton Street Transit Center are defined with clear project limits and the project is ready to enter the NEPA process.
- MTA/NYCT is proposing to initiate preparation of an Environmental Impact Statement, which would provide a good platform for the comprehensive evaluation of cumulative effects associated with all three priority transportation projects.
- The Fulton Street Transit Center project involves potential effects on the five critical environmental resource areas.
- MTA/NYCT has already initiated public coordination on the Fulton Street Transit Center project.
- MTA/NYCT is International Standards Organization (ISO) 14001 certified, and has in place an adopted, audited Environmental Management System that permeates agency activities. As a result of this certification, MTA/NYCT is ready to implement environmental performance commitments.
- The scale of the Fulton Street Transit Center is such that a full range of environmental issues need to be addressed, but the project is not so complex that it will be difficult to illustrate lessons learned.

The benefits of using the Fulton Street Transit Center as the demonstration project for the Lower Manhattan Recovery Projects are as follows:

- Establish efficient communication and coordination networks among agencies required to effectively conduct the *coordinated cumulative effects analysis* in a streamlined manner that is responsive to environmental stewardship mandates.
- Use actual project experiences as a catalyst to proactively identify and resolve “repetitive” issues and actions early in the NEPA process and establish precedents to guide future projects, and avoid revisiting the same issues one project at a time.
- Build a sense of collaborative problem solving among the participating agencies so that the traditional NEPA process roles of “proponent” and “reviewer” are melded into a productive partnership with a common goal.
- Identify and resolve technical issues and provide clarity to the guidance for future projects through real, documented project examples.

The basic activities required to advance the Fulton Street Transit Center as the demonstration project for the *coordinated cumulative effects analysis* are as follows:

- Continue coordination with project sponsors, EPA, and other Federal partners to affirm the use of Fulton Street Transit Center as a demonstration project.



- Coordinate procedures for future review of the Fulton Street Transit Center with Federal partners, project sponsors, and local agencies.
- Refine the project definition and alternatives to be considered.
- Conduct a preliminary scan of likely cumulative effects issues and potential environmental performance commitments.
- Finalize NEPA Class of Action for all project components.
- Refine public involvement approach and plan.
- Convene reviewing and resource agencies, including agency scoping.
- Continue public outreach.
- Establish scope of work and technical methodologies.
- Conduct supporting environmental analyses.
- Document technical findings.
- Review findings with reviewing and resource agencies.
- Complete public review of findings.
- Address comments received and refine project as necessary, including environmental performance commitments and any additional mitigation.
- Document environmental determinations and finding.

The proactive involvement of FTA at each stage of the environmental review process will expedite project delivery of the Fulton Street Transit Center by reducing FTA review times and by assisting to focus work activities on those issues salient to FTA's findings. In addition, documentation of findings at each stage will be used to help streamline future projects as they are ready to proceed.

### **3.4 Coordinated Cumulative Effects Analysis Technical Methodologies**

The *coordinated cumulative effects analysis* for the Lower Manhattan recovery effort will be managed to foster consistency across projects as they advance independently, while providing a comprehensive view of project outcomes in relation to each other. One of the key elements essential to implementing the proposed *coordinated cumulative effects analysis* is adherence to a common suite of technical methodologies across projects. This use of common technical methodologies forms the basis for a "building-block" approach to address cumulative effects, and supports the advancement of each project as it is ready. The use of common technical methodologies has the dual benefit both of enabling a comprehensive consideration of cumulative effects, while potentially streamlining the environmental process by reducing the learning curve required by project sponsors to complete the analysis, and the time it takes for agencies to become familiar with the analysis for each project.

Each of the technical assessment methodologies will be formulated and refined through technical working groups established for each environmental area of concern: air quality, access and circulation, noise and vibration, cultural resources, and economic factors. Although each of these environmental areas of

concern are distinct resources, they also share a cause-effect inter-relationship, highlighting the need for coordination not only across projects, but also across technical working groups. The technical working groups will consist of representatives from the Transportation Working Group, working along with FTA, the Federal partners, and local project sponsors. The ultimate outcome of the technical working group will be a single, consistent framework, and standardized technical assessment methodologies for use in the cumulative effects analysis.

The recent FHWA guidance document (January 31, 2003) on cumulative effects analysis distills a list of nine items that cumulative effects analysis should include in undertaking assessments and developing Technical Methodologies. The content of the following list is also illustrated in a series of steps outlined in Section 3.2, Figure 4 – Coordinated Cumulative Effects Analysis Process.

- Identification and agreement on the roles and responsibilities of participants and cooperating agencies in the project development process;
- Identification of appropriate project study area (study area may vary by environmental resource);
- Complete inventory of resources of concern within the project study or influence area;
- Clarification of major and important versus minor issues associated with the proposed action and alternatives;
- Identification of other actions impacting or potentially affecting the major resources;
- Definition of assessment goals, techniques, and methodology for analysis of identified potential effects;
- Establishment of appropriate resource geographic and temporal boundaries related to the identified scope of analysis;
- Identification of planning considerations in the local area, including direction and goals, land uses, and transportation plans for incorporation into the study; and
- Identification of initial alternatives to the proposal and to avoid and minimize harm to the environment.

The focus of the technical methodologies applied to support the *coordinated cumulative effects analysis* is to enable each agency to deliver its best effort to support the capacity of affected areas and resources to accommodate the implementation of the transportation projects associated with the Lower Manhattan recovery effort. Ideally, the technical methodologies will highlight opportunities to reduce the potential for cumulative impacts to those environmental factors of concern, and to mitigate identified adverse cumulative effects that are potentially significant both for each project, as well as across projects. In order to achieve these purposes, the technical methodologies for consideration of cumulative effects associated with a Proposed Action must be based on a common platform regarding other projects, and consequently will consider as a point of departure other actions that:

- Are reasonably foreseeable;
- Represent a substantive change relative to pre-9/11 conditions;
- Share a substantial temporal and geographic proximity with the Proposed Action; and
- Have the potential to substantially affect the same resource as that potentially affected by the Proposed Action.

Each technical methodology developed by the technical working groups will address the following:

- Description of the potential source or nature of impact;
- Potential data sources;
- Analysis parameters;
- Potential range or level of analysis;
- Analysis characteristics;
- Impact analysis methodologies; and
- Issues/next steps.

Because of the variation in the projects, the technical assessment methodologies will require flexibility to allow for use across different types of projects, at a level appropriate to their scale and character. Within the standard technical assessment methodology for each environmental area of concern, various levels of analysis will be employed to correspond to the class of action, combined with the potential for adverse and significant impacts, whether direct, indirect or cumulative. In so doing, each project would undergo analysis proportional to the expected magnitude of effect. Flexibility within the standardized approach is also required to effectively balance the need for compatible data and methodologies with the potentially differing regulations and guidance required by federal, state, and local regulations and guidance. For example, the technical assessment methodology for noise and vibration must be flexible enough to address the FTA guidance focused on transit facility and vehicle noise and vibration construction and operation, the FHWA regulations applicable to noise generated by vehicles operating on roadway facilities and roadway construction, as well standards under the New York State Environmental Quality Review Act (SEQRA), the New York City CEQR Technical Manual, and local noise ordinances regarding operations and construction. Consequently, the technical methodologies must address the need to “bridge” the results of different analyses, or to include the results of multiple analytical approaches.

Based upon the above considerations, the following sections frame the issues and approach for each environmental area of concern identified as having potentially significant potential for adverse cumulative effects impacts. The discussion forms a point of departure for future detailed technical assessment methodologies that will be generated through the technical working groups for each of the resource areas of concern. The development of the specific technical methodologies by the technical working groups will be informed by project scoping and the recommendations received from agencies and the public. As the technical analysis methodologies for a particular project is refined through scoping, the information will be used to update the *coordinated cumulative effects analysis* for subsequent projects as appropriate. Ongoing coordination through the technical working groups will support the refinement of the specific technical assessment methodologies in support of a single consistent approach.

## **A. Air Quality Technical Methodology Issues and Approach**

The approach to air quality will take advantage of the concurrent analyses planned for the first group of three priority transportation projects in the Lower Manhattan recovery effort as part of the Fulton Street Transit Center demonstration project. The approach also relies on coordination among project proponents and the Interagency Consultation Group (ICG).

The NY-NJ-CT Air Quality Control Region (AQCR) is classified as a severe non-attainment area for ozone. The precursors of ozone are nitrogen oxides (NOx) and volatile organic compounds (VOCs). Manhattan is classified as maintenance for carbon monoxide (CO) and in nonconformity for exceeding NAAQS for PM<sub>10</sub>. The EPA and other regulators are concerned with the effects of PM<sub>2.5</sub>.

At this time, as a result of the World Trade Center disaster on September 11, 2001, and the loss of NYMTC's (the Metropolitan Planning Organization) files containing regional transportation and air quality data, combined with the damage incurred to the downtown mass transit system, the conformity requirements for the New York Metropolitan area have been temporarily waived until September 30, 2005, pursuant to Public Law 107-230; Stat. 1469, enacted October 1, 2002. The implication is that

NYMTC has until September 30, 2005, to produce a conforming TIP and Plan. Interim interagency consultation procedures were developed, to be in effect during the waiver. These procedures were developed to assist the New York State Department of Transportation (NYSDOT) in the interim reporting to congressional committees, the EPA, and the U.S. Department of Transportation. Thus the air quality analysis as part of the Lower Manhattan recovery effort focuses on the legislative waiver of conformity requirements for the plan and TIP. As such, a way that project sponsors comply with the analysis requirements of NYSDOT's interim interagency consultation procedures is by providing a mesoscale or corridor-level analysis in the environmental analysis. This analysis substitutes for the plan/TIP conformity analysis that has not been undertaken.

The rebuilding, restoration and enhancement of Lower Manhattan's transportation system is expected to create long-term benefits to air quality as a result of the increased potential for use of transit modes that will contribute to an overall reduction in vehicular emissions. However, realizing these long-term benefits to air quality is only possible following the construction activities associated with implementing several large-scale projects. These construction activities have the potential to temporarily adversely affect air quality through the emissions of pollutants from multiple stationary and mobile sources involved in the construction process. The utilization of heavy construction equipment and on-site generators produce hydrocarbon emissions, exhaust fumes, toxics, and contribute to PM concentrations. These potential impacts could be worsened by the coincidence of project construction activities either temporally, or in the same geographic area, or both.

The potential for adverse impacts could be reduced through the use of EPCs. EPCs that could be considered may include, but are not limited to, the following:

- Use environmentally friendly materials, including low VOC paint, specifications of sealants that meet or exceed the VOC limits of California's South Coast Air Quality Management District Rule No. 1168, or adhesives that meet the San Francisco Bay Area Resource Board Regulations.
- Manage and contain of particulate matter by employing alternative construction measures such as deconstruction instead of demolition.
- Minimize PM, NO<sub>x</sub> and SO<sub>x</sub> from stationary diesel powered equipment and mobile off-road diesel equipment by: using pre-certified equipment; retrofitting equipment with emission controls from an EPA verified list; using red dye ultra low sulfur diesel fuel (15 ppm); or scheduling construction phasing and/or sequencing to reduce concurrent on- and off-road construction and related equipment usage.
- Manage the material and delivery process involving on-road diesel and petrol equipment on-site through the following: pre-certify equipment at and through DOT inspection stations with prominently displayed sticker; ensure all fueling trucks are red dye diesel fueling trucks (to distinguish from regular diesel); permit only recycling trucks; and trucks with EPA Tier 2 compliance.

Next steps and issues to resolve in the development and finalization of the technical analysis methodology for air quality to be undertaken by the project sponsors are:

- Identify and convene technical working group to address air quality issues, and outline the coordination process and expected participation, roles, and responsibilities.
- Finalize a list and description of activities with the potential to cause short-term and long-term impacts to air quality, such as use of construction equipment, idling, materials delivery and removal, demolition activities, airborne dust associated with ground disturbance, increases in vehicle exhausts, and increases in traffic volumes.

- Confirm data sources and establish database for existing and future environmental conditions, current projects, and future projects.
- Establish analysis parameters relative to baseline years for construction and operation, as well as assumptions regarding NAAQS and other standards (CO, PM<sub>10</sub>, PM<sub>2.5</sub>, etc.), emissions and dispersion modeling protocols (Mobile, CAL3QHC, etc.) and modeling inputs (such as persistence factors and meteorological data), and assess implications of general conformity exemption of September 2002.
- Refine geographical boundaries of analysis to address micro-scale/project site location, area-wide limits, and sensitive receptors.
- Refine temporal parameters.
- Develop analysis characteristics and impact assessment approach including detailed procedural and quantitative assessment protocols based on regulations, guidelines, current professional practice standards, and coordination with appropriate resource agencies including NYMTC and the ICG.
- Refine and commit to EPCs.
- Outline process for identifying and coordination mitigation requirements.
- Document completed technical assessment methodology.

FTA will assist the project sponsors in the advancement and development of the technical methodology by:

- Providing technical assistance and guidance at the request of the project sponsors, including participation in the technical working group on an as needed basis;
- Leading the coordination with the Federal partners under the ECR MOU; and
- Assisting with coordination with resource, regulatory, and review agencies, including the ICG.

## **B. Access and Circulation Technical Methodology Issues and Approach**

The effects of September 11, 2001 resulted in temporary impacts on access to and circulation within Lower Manhattan, some of which still affect regional and local travel. As a result, Lower Manhattan is now faced with balancing the progression of previously planned transportation improvements with the actions required to reconstruct and replace damaged and destroyed transportation infrastructure. This circumstance has the potential to result in temporary, short-term construction impacts, including cumulative effects, on businesses and residents both in terms of accessibility and mobility, as well as the associated implications for air quality and economic vitality. The potential is greatest in locations where multiple projects will be coincident in the same geographic area, or occur at the same or overlapping time periods.

Identification of problem areas as part of the cumulative effects analysis would require coordination among all potentially concurrent projects. This coordination would build upon the weekly construction coordination meetings hosted by New York City DOT. Technical work sessions among project sponsors and NYCDOT will identify key intersections and recommend refined analysis for potential mitigation strategies, as well as environmental performance commitments. These performance commitments could

potentially include construction staging to maintain adequate access and circulation around specific project areas and the region, and/or definition of a process by which staging would be coordinated to reduce impacts.

Next steps and issues to resolve in the development and finalization of the technical analysis methodology for access and circulation to be undertaken by the project sponsors are:

- Identify and convene technical working group to address traffic and circulation issues, and outline the coordination process and expected participation, roles, and responsibilities.
- Finalize a list and description of activities with the potential to cause short-term and long-term impacts to access and circulation, such as lane closures, vehicle rerouting, added congestion from delivery trucks, staging areas, and disruption to pedestrian activities.
- Confirm data sources and establish database for existing and future environmental conditions, current projects, and future projects, and undertake new data collection as appropriate to assess trip generation, multi-modal vehicular traffic volumes, traffic counts and projections, speed, modal split, and transit ridership.
- Establish analysis parameters relative to baseline years for construction and operation, as well as assumptions regarding AM, Midday, and PM Peak hours.
- Refine geographical boundaries of analysis to address micro-scale/project site location, traffic network, area-wide limits, and regional limits.
- Develop analysis characteristics and impact assessment approach including detailed procedural and quantitative assessment protocols to address the effects on travel patterns, connectivity, emergency access, and determine the impact criteria appropriate to assess internal and external circulation and mobility conditions within and to/from Lower Manhattan.
- Refine and commit to EPCs.
- Outline process for identifying and coordination mitigation requirements.
- Document completed technical assessment methodology.

FTA will assist the project sponsors in the advancement and development of the technical methodology by:

- Providing technical assistance and guidance at the request of the project sponsors, including participation in the technical working group on an as needed basis;
- Leading the coordination with the Federal partners under the ECR MOU; and
- Assisting with coordination with resource, regulatory, and review agencies.

### **C. Noise and Vibration Technical Methodology Issues and Approach**

Reconstruction and recovery projects associated with transportation infrastructure could potentially cause changes to existing noise and vibration levels and could result in both short-term and long-term, cumulative effects. Construction activities in the same geographic vicinity or at the same time, or both, could result in short-term cumulative effects to residential areas or other sensitive receptors. Long-term

cumulative effects could result either directly from new or enhanced service (whether buses, or subway) or indirectly from increased services from feeder-bus or changes in traffic patterns in the area.

The range of noise impacts to be addressed within the cumulative effects analysis result from construction methods, traffic diversions, traffic volumes, mode, and surface noise or noise emanating through openings to the street through ventilation shafts and station entrances. Vibration impacts during construction could depend on such factors as volume, speed, construction methods, and soil conditions, and could be conducted through building foundations. Such impacts could also be perceived as noise. Long-term noise and vibration impacts could result from transit system operations.

Important considerations include the establishment of a noise and vibration monitoring program during construction, and a construction noise and vibration management system that provides flexibility in responding to identified exceedances and concerns. Technical working sessions will be necessary among active project sponsors to reconcile the multiple regulations and guidance covering noise and vibration impacts, each developed to address different types of facilities. These sessions should clearly identify methodologies for obtaining baseline data, clear criteria limits, construction noise and vibration mitigation features and monitoring, and potential EPCs, including enclosing construction areas during night time construction or limiting truck idling.

Next steps and issues to resolve in the development and finalization of the technical analysis methodology for noise and vibration to be undertaken by the project sponsors are:

- Identify and convene technical working group to address noise and vibration issues, and outline the coordination process and expected participation, roles, and responsibilities.
- Finalize a list and description of activities with the potential to cause short-term and long-term noise or vibration impacts, such as use of different construction methods, use of heavy equipment, excavation activities, demolition or deconstruction activities, construction vehicles, increased vehicular congestion, and operational changes, such as location, speed and frequency of vehicles.
- Confirm data sources and establish database for existing and future environmental conditions, current projects, and future projects, and undertake new data collection as appropriate to establish existing noise and vibration levels in the vicinity of sensitive receptors.
- Establish analysis parameters relative to baseline years for construction and operation.
- Refine geographical and temporal boundaries of analysis, including the project site as well as primary and secondary impact limits for the study area for peak, midday and night time hourly levels.
- Develop analysis characteristics and impact assessment approach including detailed procedural and quantitative assessment protocols to address potential noise and vibration impacts in accordance with FTA and FHWA guidance and regulations for the range of facilities to be developed and the range of construction activities to be undertaken. Guidance and regulations to be addressed include FTA Transit Noise and Vibration Guidance (DOT-T-95-16; 1995) and FHWA Procedures for the Abatement of Highway Traffic Noise and Construction Noise (23 CFR 772).
- Refine and commit to EPCs.
- Outline process for identifying and coordination mitigation requirements.

- Document completed technical assessment methodology.

FTA will assist the project sponsors in the advancement and development of the technical methodology by:

- Providing technical assistance and guidance at the request of the project sponsors, including participation in the technical working group on an as needed basis;
- Leading the coordination with the Federal partners under the ECR MOU; and
- Assisting with coordination with resource, regulatory, and review agencies.

#### **D. Cultural and Historic Resources Technical Methodology Issues and Approach**

Lower Manhattan is rich in history and tradition that reflect the area's central role in finance, commerce, and culture. In general, the range of potential impacts and disturbances to historic or architectural resources can include both direct physical impacts—demolition, alteration, or damage from construction on nearby sites—and indirect, contextual impacts, such as the isolation of a property from its surrounding environment, or the introduction of visual or atmospheric elements that are out of character with a property or that alter its setting or effect the structural integrity of the resource.

As part of the cumulative effects analysis, a detailed scope of work for cultural and historic resources would be developed in consultation with SHPO and the Landmarks Preservation Commission (LPC). The technical analysis methodology will address regulatory requirements under Section 4(f) of the U.S. Department of Transportation Act, Section 106 of the National Historic Preservation Act, and in accordance with the Secretary of the Interior's Standards for Archaeology and Historic Preservation and the New York State Archaeological Council's Standards for Cultural Resource Investigations and Curation of Archaeological Collections. A plan for implementation, including staging of specific construction efforts, should be developed in coordination with project sponsors and agencies. Part of this coordination will be to identify potential EPCs to be used to offset potential impacts to cultural resources before they occur, such as restrictions on the storage of construction equipment that might otherwise result in short-term visual impacts to historic structures, on compaction and damage to archaeological resources. . Likewise, once potential impacts are identified, mitigation measures to reduce impacts should be coordinated with agencies and project sponsors.

Next steps and issues to resolve in the development and finalization of the technical analysis methodology for cultural and historic resources to be undertaken by the project sponsors are:

- Identify and convene technical working group to address cultural resource (historic and archaeological), and outline the coordination process and expected participation, roles, and responsibilities.
- Finalize a list and description of activities with the potential to cause short-term and long-term impacts to cultural resources, such as use of different construction methods, use of heavy equipment, excavation activities, demolition or deconstruction activities, underpinning, new structures and changes in pavement of other contextual items.
- Confirm data sources and establish database for existing and future environmental conditions, current projects, and future projects, and undertake new data collection (research or field surveys) as appropriate to establish existing cultural resources eligible for or potentially eligible for the National of Historic Places in the vicinity of proposed projects.
- Establish the Area of Potential Effect (APE) in consultation with the SHPO.



- Develop analysis characteristics and impact assessment approach including detailed procedural and quantitative assessment protocols to address potential effects on identified cultural resources, and the extent to which those effects may be adverse. The development of the approach should be done in consultation with the SHPO, NYC Landmarks Preservation Committee, and the Landmarks Conservancy, in addition to the Federal partners and the Advisory Council on Historic Preservation, as necessary.
- Refine and commit to EPCs.
- Outline process for identifying and coordination mitigation requirements to address adverse effects.
- Document completed technical assessment methodology.

FTA will assist the project sponsors in the advancement and development of the technical methodology by:

- Providing technical assistance and guidance at the request of the project sponsors, including participation in the technical working group on an as needed basis;
- Leading the coordination with the Federal partners under the ECR MOU; and
- Assisting with coordination with resource, regulatory, and review agencies, including consultation with the Advisory Council on Historic Preservation and the U.S. Department of the Interior, as needed.

## **E. Economic Considerations Technical Methodology Issues and Approach**

According to FEMA estimates, New York City's economy will sustain a gross loss of approximately \$83 billion due to the World Trade Center disaster (August 2002). Even after the effect of insurance payments and the Federal emergency funds, the New York City economy faces a net impact of at least \$16 billion in lost economic output (NYC Partnership and Chamber of Commerce, 2001). The rebuilding efforts undertaken by FTA and its Federal partners, state and local agencies are designed to restore Lower Manhattan to its original role as an important economic engine for the region, while also improving its accessibility, livability and economic vitality. As part of the rebuilding efforts, the remaining business interests could be subject to additional impacts associated with reconstruction activities. In addition, changes in the transportation network and urban structure of the area created through rebuilding efforts, may generate additional impacts to local and regional economic conditions.

Issues to be addressed as part of the cumulative effects analysis relative to economic effects pertain to both regional and local economic conditions, such as development, tax revenues and public expenditures, employment opportunities, accessibility, retail sales, the economic vitality of existing businesses, and the effect of a restored, enhanced and new transportation infrastructure investment on established business districts. The cumulative effects analysis must take into account both short-term construction impacts and long-term operational (post construction) impacts.

Technical work sessions among project sponsors will identify areas where potentially significant adverse economic effects from concurrent construction activities may result for local businesses, the City of New York, and the region. To the extent practical, EPCs and mitigation measures should be identified as early as possible for implementation prior to, or during the construction process. Areas of anticipated economic improvement associated with completed projects should also be identified and quantified to the extent possible.

Next steps and issues to resolve in the development and finalization of the technical analysis methodology for economic impacts to be undertaken by the project sponsors are:

- Identify and convene technical working group to address economic impacts, and outline the coordination process and expected participation, roles, and responsibilities.
- Finalize a list and description of activities with the potential to cause short-term and long-term economic impacts, such as the effects on utility disruptions on business activities, limitations on pedestrian, vehicular, and transit access to businesses, restricted visual access to businesses, losses or increases in jobs, potential increases or losses in retail sales, effects on the tax base, effects on property valuations and potential for business and residential relocations, among others.
- Confirm data sources and establish database for existing and future environmental conditions, current projects, and future projects, and undertake new data collection (market assessment or property surveys) as appropriate to establish existing and future economic conditions in the vicinity of proposed projects.
- Coordinate with NYMTC on economic data inputs and NYMTC regional econometric model, particularly employment and population projections through 2025.
- Review MTA financial model.
- Establish the geographic and temporal boundaries for analysis to address both micro-scale (site specific) and macro-scale (regional) economic consequences.
- Develop analysis characteristics and impact assessment approach including detailed procedural and quantitative assessment protocols to address potential effects on regional and local economic factors, illustrating the extent to which those effects may be beneficial or adverse. The approach should focus on the trends and outcomes of direct, indirect and cumulative effects of economic and fiscal impacts including changes in business activity, employment, income, population and tax revenues.
- Refine and commit to EPCs.
- Outline process for identifying and coordination mitigation requirements to address adverse effects.
- Document completed technical assessment methodology.

FTA will assist the project sponsors in the advancement and development of the technical methodology by:

- Providing technical assistance and guidance at the request of the project sponsors, including participation in the technical working group on an as needed basis;
- Leading the coordination with the Federal partners under the ECR MOU; and
- Assisting with coordination with resource, regulatory, and review agencies.

## 4.0 Implementation Roles and Responsibilities

Numerous stakeholders are involved with the Lower Manhattan Recovery Effort and are responsible for funding, project development, project review, concurrence, and permitting. The August 2002 ECR MOU (Appendix A) specified commitments regarding federal agency roles and coordination, as well as a streamlined environmental process (*"Environmental Coordination and Review Among Federal Partners"*). In addition to the Federal partners, other stakeholders include project sponsoring agencies and state and local agencies. The clear articulation and understanding of roles and responsibilities of various stakeholders with respect to the *coordinated cumulative effects analysis* is an important part of defining and implementing a successful framework for the evaluation of cumulative effects.

Successful completion of the *coordinated cumulative effects analysis* will require participation of the federal entities identified in the original MOU, as well as a broader array of stakeholders. Appendix E provides a list of participants in the *coordinated cumulative effects analysis* and outlines their respective roles in the Lower Manhattan Recovery Effort NEPA process, and the cumulative effects analysis. In general, there are five basic levels of participation identified for the *coordinated cumulative effects analysis*:

- **Federal lead agencies**, or their designated representatives, are responsible for developing the cumulative effects analysis approach, providing technical guidance, and ensuring compatibility of approach across projects.
- **Cooperating agencies** are responsible for providing technical assistance, including input into the cumulative effects analysis approach, in addition to fulfilling responsibilities under NEPA by responding to the requests of the lead federal agencies and participating in key milestone activities that affect the treatment of cumulative effects such as scoping, field reviews, public involvement activities, and environmental document review.
- **Resource and regulatory agencies** are responsible for contributing to development of the cumulative effects analysis framework and providing technical assistance regarding proposed methodologies, as well as reviewing and commenting on cumulative effects analysis findings.
- **Review agencies** are responsible for providing comments on cumulative effects analysis methodology and evaluation findings.
- **Project sponsoring agencies** are responsible for preparing cumulative effects analyses for inclusion in NEPA documentation in accordance with the adopted methodology and guidance, as well as consultation and coordination with appropriate federal, state, and local agencies. As part of this responsibility, it is likely that the sponsoring agencies will convene multi-agency technical working groups to address each of the areas of environmental concern.

## **5.0 Next Steps and Recommendations**

The following actions are required to advance the *coordinated cumulative effects analysis* for the Lower Manhattan recovery effort:

- Finalize implementation of the approach with project sponsors, including the application of technical methodologies and the adoption of environmental performance commitments (EPCs) for each of the five environmental areas of concern (air quality, noise and vibration, access and circulation, cultural and historic resources, and economic factors).
- Continue coordination with EPA and the Federal partners to assess progress on implementation of the approach.
- Provide technical support to project sponsors during advancement of the environmental process for Fulton Street Transit Center “demonstration” project, and other projects as they advance.
- Conduct a Peer Review of the *coordinated cumulative effects approach* during implementation.
- Document the demonstration project methodologies and process for use by future projects

## **APPENDIX A**

### **Memorandum of Understanding Environmental Coordination and Review Among the Federal Partners (August 2002)**

**MEMORANDUM OF UNDERSTANDING**  
**ENVIRONMENTAL COORDINATION AND REVIEW**  
**AMONG THE FEDERAL PARTNERS**  
**OF THE**  
**FEDERAL TASK FORCE TO REBUILD NEW YORK CITY**  
**ENVIRONMENTAL PLANNING AND REVIEW COMMITTEE**

This Memorandum of Understanding (MOU) is entered into jointly by the following parties: the Federal Emergency Management Agency (FEMA); the Federal Transit Administration (FTA); the Federal Highway Administration (FHWA); the U.S. Department of Housing and Urban Development (HUD); the New York State Urban Development Corporation d/b/a the Empire State Development Corporation (ESDC) and the Lower Manhattan Development Corporation (LMDC); the U.S. Coast Guard (USCG); the U.S. Environmental Protection Agency (EPA); the U.S. Army Corps of Engineers (USACE); the U.S. Fish and Wildlife Service (USFWS); and the National Marine Fisheries Service (NMFS).

**I. Purpose**

The purpose of this Memorandum of Understanding (MOU) is to formalize the commitment among the listed Federal agencies to work in a partnering process to coordinate and accelerate the review of projects under the National Environmental Policy Act (NEPA) and associated laws in order to develop environmentally responsible projects while preventing project delays. The partnership would also ensure that the Federal agencies work efficiently with the State and Local agencies toward this goal. This partnership will facilitate a coordinated approach that ensures environmentally sound decisions based on concurrent and expedited agency reviews. This MOU shall be applicable to projects developed and/or funded as a result of the September 11, 2001, terrorist attack on New York City (NYC).

**II: Background**

The need for environmental coordination to streamline project development and construction is seen as necessary by the parties to fulfill the mandates of NEPA and applicable Federal, State, and local environmental laws.

The MOU identifies the Federal lead and cooperating agencies for the preparation and documentation of analysis required under NEPA and associated laws, and establishes a response period among the listed agencies for consultation, coordination, and concurrence of project requirements. Additional MOUs or other agreements may be developed to address particular issues, projects, or other needs to further the intent of this MOU.

The federal funding agencies, which include FEMA, FTA, FHWA, and HUD, developed a preliminary list of potential recovery projects. These projects are identified in the Emergency/Interim Transportation Disaster Recovery Plan and referenced herein. Similar or additional projects may be identified at a later date within the same scope or magnitude, and this MOU shall be applicable to those projects.

### **III. Commitments of the Agencies**

Since the projects may involve funding, concurrence, or permitting from several Federal agencies, each agency will be responsible for identifying the issues that must be addressed to satisfy its respective statutory requirements and for coordinating with other agencies as necessary. Each of the signatories to this MOU will be responsible for the following:

- FEMA - will serve as a lead agency and coordinate all project reviews for projects funded under FEMA programs related to the disaster designated FEMA-1391-DR-NY, serve as a cooperating agency for projects funded under other authorities, as appropriate, and provide technical assistance for National Flood Insurance Program related issues.
- FTA - will serve as a lead agency and coordinate all project reviews for projects funded under FTA programs, serve as a cooperating agency for projects funded under other authorities, as appropriate, and provide technical assistance for transit-related projects.
- FHWA - will serve as a lead agency and coordinate all project reviews for projects funded under FHWA programs, serve as a cooperating agency for projects funded under other authorities, as appropriate, and provide technical assistance for road-related projects.
- HUD - will serve as a cooperating agency for projects funded under non-HUD authorities, as appropriate.
- New York State through the ESDC and/or the LMDC, pursuant to 42 U.S.C. 5304(8), will assume the Federal agency responsibility for environmental reviews, will act as a lead agency, and will coordinate all project reviews for projects funded under HUD community development programs; and upon the request of a federal lead agency, will serve as a cooperating agency for projects funded under other authorities, as appropriate.
- USACE - will serve as a cooperating agency and provide technical assistance, as necessary, in evaluating projects to ensure any U.S. water or wetland impacts are identified, avoided or minimized, and mitigation resolved.
- USCG - will serve as a cooperating agency and provide technical assistance, as necessary, in evaluating projects to ensure the U.S. navigable waterway needs are met and any bridge impacts are identified and resolved.
- EPA - will serve as a cooperating agency and provide technical assistance, as necessary, to ensure air quality, water quality, and hazardous waste standards are evaluated in NEPA documents and other environmental studies in support of NEPA documents, as appropriate.
- USFWS - will serve as a cooperating agency and provide technical assistance, as necessary, in evaluating projects to ensure threatened and endangered species are identified, any impacts avoided or minimized, and mitigation resolved.
- NMFS - will serve as a cooperating agency and provide technical assistance in, evaluating projects, as necessary, to ensure threatened and endangered species and essential fish habitat are identified, any impacts avoided or minimized, and mitigation resolved.

In the spirit of cooperation and collaboration, and with the mutual understanding that this is a flexible working agreement among the signatory agencies, we hereby commit to undertake the following actions:

- Support concerted, cooperative, effective, and collaborative work to provide for the disaster recovery effort resulting from the September 11, 2001, New York City terrorist attack.
- Accelerate all project reviews under our respective jurisdictions.
- Notify parties at the earliest project proposal stage when it becomes apparent that a party will not have an action and therefore will not need to participate further in that project's development.
- Address anticipated needs for funding, licensing, permitting, or other action that may result from a proposed project by ensuring that consultation, documentation, and design meet the needs for agency approval(s).
- Coordinate agencies' public involvement processes to the extent possible.
- Participate in the development of technical information, identification of impacts on resources, and mitigation recommendations.
- Review and comment on draft documentation regarding project impacts, mitigation, and design.
- Participate in meetings as necessary to discuss such documentation, mitigation, and design.
- Provide timely review and constructive comments on projects, focusing additional information requests on information that is needed to reach an informed decision.
- Identify solutions to reduce unnecessary project delays by using concurrent review of plans and projects and other means.
- Share information on project reviews with Federal, State, and City agencies in order to avoid duplication of effort.
- Identify potential barriers to achieving project goals through meetings, conference calls, and participation in developing timely resolutions.

To aid in meeting these commitments the parties agree to do the following:

- Provide response and/or comment within a 10-day period from the date of receipt
- Provide comments and propose mitigation at the earliest stage possible in project development.
- Share information related to project development, review, and approval to assist other parties in carrying out their responsibilities and decision-making.
- Provide representation and information to meet these commitments via meetings of the Federal Task Force to Rebuild NYC and the Environmental Planning and Review Committee, and additional communication, as needed.
- To the greatest extent possible, speak with one voice through the lead Federal agency in order to ensure working efficiently.
- This MOU may be modified upon the mutual (written) consent of participating parties.
- An agency, upon 10 days written notice to the other participants, may terminate its participation in this agreement without rendering the document invalid for all other participating agencies; supplemental documentation of termination of participation will be adopted by the remaining agencies upon receipt of the written notice.
- Nothing in this MOU shall be construed as limiting or constraining a lead or cooperating agency's obligation to make an independent assessment and decision regarding the appropriate level of environmental documentation and processing with respect to specific projects under NEPA and related statutes.

This MOU may be implemented in counterparts, with a separate page for each signatory, and



FEMA will ensure that each party is provided a complete copy. This MOU is effective on the signatory date for each party. Nothing in this agreement is intended to conflict with current law or regulation or directives of the signatory parties. If a term of this agreement is inconsistent with such authority, then the term shall be invalid, but the remaining terms and conditions of this agreement shall remain in full force and effect. Potentially, other agencies may become parties to this agreement as project development progresses. This MOU shall remain in effect until the last project funded as a result of the September 11, 2001, terrorist attack on New York City is fully constructed.

#### **IV. Conclusion**

In signing this MOU, the undersigned recognize and accept the roles and responsibilities assigned to each party. Each of the parties agrees to pursue cooperation, communication, and efficiency to effectively ensure that projects comply with all applicable Federal requirements.

FEDERAL EMERGENCY MANAGEMENT AGENCY

By: Joseph Picciano  
Joseph Picciano, Acting Regional Director,  
Region II

Date:

6/20/02

MEMORANDUM OF UNDERSTANDING  
ENVIRONMENTAL COORDINATION AND REVIEW  
AMONG THE FEDERAL PARTNERS OF THE  
FEDERAL TASK FORCE TO REBUILD NEW YORK CITY  
ENVIRONMENTAL PLANNING AND REVIEW COMMITTEE

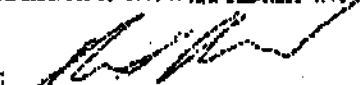
FEDERAL TRANSIT ADMINISTRATION

By: *Robert Thompson*  
Robert Thompson, Regional Administrator,  
Region 7

Date: 06/24/02

MEMORANDUM OF UNDERSTANDING  
ENVIRONMENTAL COORDINATION AND REVIEW  
AMONG THE FEDERAL PARTNERS OF THE  
FEDERAL TASK FORCE TO REBUILD NEW YORK CITY  
ENVIRONMENTAL PLANNING AND REVIEW COMMITTEE


FEDERAL HIGHWAY ADMINISTRATION

By:   
Robert Amick, Division Administrator,  
New York Division

Date: 6-24-02

FEDERAL HIGHWAY ADMINISTRATION

FEDERAL HIGHWAY ADMINISTRATION

By:   
Robert Amick, Division Administrator,  
New York Division

Date: 6-24-02

EMPIRE STATE DEVELOPMENT CORPORATION

By: *[Signature]*  
Kevin S. Corbett, Executive Vice President and Chief Operating Officer

Date: June 25, 2002

LOWER MANHATTAN DEVELOPMENT CORPORATION

By: [Signature]

Date: 6/21/2002

Kenneth R. Rupp, Executive Vice President and General Counsel

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

By: *Roy A. Bernardi* Date: 7/16/02  
Roy A. Bernardi,  
HUD Assistant Secretary for Community Planning and Development

U.S. ENVIRONMENTAL PROTECTION AGENCY

By: J. M. Kerry  
Jane M. Kerry, Regional Administrator,  
Region II

Date: July 1 1983



U.S. ARMY CORPS OF ENGINEERS

By: [Signature]  
Colonel John H. O'Dowd, Commander,  
New York District

Date: 2 July 2002

U.S. COAST GUARD

By: A. S. Crenshaw  
Rear Admiral Vivian S. Crenshaw  
Commander, First Coast Guard District

Date: 11-1-88

U.S. FISH AND WILDLIFE SERVICE

By Mia Parker  
Dr. Marcia Parker, Regional Director  
Northeast Regional Office

Date: JUL 24 2002

MEMORANDUM OF UNDERSTANDING  
ENVIRONMENTAL COORDINATION AND REVIEW  
AMONG THE FEDERAL PARTNERS OF THE  
FEDERAL TASK FORCE TO REBUILD NEW YORK CITY  
ENVIRONMENTAL PLANNING AND REVIEW COMMITTEE

NATIONAL MARINE FISHERIES SERVICE

By: *P. A. Kuzkol*

Patricia A. Kuzkol, Regional Administrator,  
Northeast Regional Office

Date: 8/9/02

## **APPENDIX B**

### **Federal Emergency Management Agency (FEMA) Letter Regarding Transition of EPRC to FTA (November 18, 2002)**



## Federal Emergency Management Agency

WTC Federal Recovery Office

26 Federal Plaza, Room 31-100

New York, NY 10278

November 18, 2002

Susan E. Schruth,  
Director  
Lower Manhattan Recovery Office  
Federal Transit Administration  
One Bowling Green, Room 429  
New York, NY 10004-1415

Dear Ms. Schruth:

The Federal Emergency Management Agency (FEMA) has gathered background data related to our projects in response to the September 11, 2001, disaster in New York City in the draft Programmatic Assessment for Reconstruction and Recovery Activities, World Trade Center Disaster, New York, New York, dated August 2002. Although initially we had anticipated that this analysis would encompass all projects carried out as a result of the disaster, as well as other on-going projects in the area, time and resources did not enable us to realize this objective. Thus, some of the preliminary conclusions drawn in the document, such as significance thresholds, do not have the full technical analysis and evaluation necessary to support them and cannot be fully evaluated without project-specific information that was not available for this preliminary assessment.

With the Environmental Planning and Review Committee (EPRC) Federal leadership now being transitioned to the Federal Transit Administration (FTA) for the long-term recovery effort, FEMA will not be completing the document as initially envisioned and will provide our Federal partners with the analyses completed in support of this document and the EPRC. We believe this preliminary analysis of potential projects will be useful in evaluating comprehensively the impacts of the long-term disaster recovery projects.

I understand you will be contacting the EPRC members shortly regarding how the EPRC can best evolve to meet the needs for transitioning from the initial disaster recovery phase to the long-term project recovery phase. I am happy to share some thoughts and ideas on how best to address interagency coordination among Federal, State, and local partners in this effort with you. It has been a pleasure serving as co-chair of the EPRC and I know that the long-term New York City recovery efforts will be successful.

Sincerely,



Brad Gair  
Federal Recovery Officer

cc: Committee Members, EPRC

## **APPENDIX C**

**Governor George E. Pataki Letter Identifying Priority Projects  
Recommended for the Lower Manhattan Recovery Effort  
(February 6, 2003)**



STATE OF NEW YORK

GEORGE E. PATAKI  
GOVERNOR

February 6, 2003

Dear Mr. Allbaugh and Ms. Dorn:

Thank you for your letter of January 10<sup>th</sup> and your continuing commitment to assisting the state of New York as it recovers from the devastating terrorist attacks of September 11, 2001. The \$4.55 billion in transportation assistance is crucial to the successful recovery of lower Manhattan. Rebuilding, restoring and enhancing lower Manhattan's transportation system is the top priority of my long-term plans for its revitalization. The efforts undertaken by the Federal Emergency Management Agency (FEMA) and the Federal Transit Administration (FTA) to deliver these needed resources through an efficient and responsive process are critical to achieving this goal. We are gratified that the FTA has created the Lower Manhattan Recovery Office and we appreciate the on-site commitment that FEMA has made since the day of the attack. Both offices have done an exceptional job in moving projects forward.

In my October 17 letter I set forth a list of projects recommended by the agencies most familiar with lower Manhattan's transportation infrastructure and needs. These projects were the result of extensive discussions by the Transportation Working Group composed of representatives of the State of New York, the City of New York, the Metropolitan Transportation Authority (MTA), the Port Authority of New York and New Jersey (PANYNJ), the New York State Department of Transportation (NYSDOT), and the Lower Manhattan Development Corporation (LMDC). That list of projects has not changed. The projects (and responsible agencies) are as follows:

- A lower Manhattan Transit Complex that will repair, replace and restore transportation functionality, unify lower Manhattan transportation facilities and provide needed intermodal access:
  - World Trade Center Transportation Hub (including World Trade Center PATH Terminal, pedestrian connections and related infrastructure) (PANYNJ); and
  - The Fulton Street Transit Center (MTA).
- The South Ferry Subway Terminal (MTA)
- Access to regional airports (MTA/PANYNJ)
- Bus Facilities and Street Restoration (PANYNJ)
- Improvements to Route 9A/West Street consistent with site redevelopment (NYSDOT)

EXECUTIVE CHAMBER STATE CAPITOL ALBANY 12224

<http://www.state.ny.us>

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Mr. Joseph M. Allbaugh  
Ms. Jennifer Dorn  
February 6, 2003  
Page 2

On December 12, 2002 New York City Mayor Bloomberg unveiled the City's vision for lower Manhattan. This bold vision identifies the projects set forth in this letter as critical to the revitalization of lower Manhattan in the wake of the September 11<sup>th</sup> attacks. The release of the vision has also prompted us to consider several additional projects which are listed below:

- Ferry infrastructure: A series of new terminals around lower Manhattan and elsewhere in the region (as required to serve lower Manhattan);
- East River waterfront improvements (FDR Drive viaduct, Brooklyn Bridge access ramps, and Battery Tunnel Plaza): As part of a plan to revitalize the waterfront along the East River, changes to the transportation infrastructure along the waterfront will be examined; and
- Brooklyn Battery Tunnel decking: To eliminate a current barrier to development formed by the entrance to the Brooklyn Battery Tunnel, a deck that would allow for creation of a new park and residential community.

The Lower Manhattan Transit Complex and the South Ferry Subway Terminal are moving forward immediately. Other projects are less defined. More detail from my office will follow within the next three months.

In the immediate aftermath of September 11<sup>th</sup> the responsible agencies for all of these projects worked closely with FEMA and the FTA to immediately restore, where possible, the lower Manhattan transportation infrastructure. In addition, these agencies held numerous briefings to inform the FTA, FEMA and other federal officials about the projects needed and the steps necessary to restore full functionality. Briefings were held in Washington, D.C. and New York where they included field visits to the impacted transit facilities and electronic presentations of the proposed projects. With the establishment of the special FTA Lower Manhattan Recovery Office in 2002, the responsible agencies initiated a series of regular meetings to review the proposed projects in greater detail.

Since my letter of October 17<sup>th</sup>, these meetings have become the core of an ongoing, regular consultation process with FTA staff and its contractors and coordination with appropriate FEMA personnel. Regular review meetings will continue throughout the life of the projects. Because many projects are currently in the preliminary stages of development, the costs and scopes set forth below are likely to change as projects move forward. The costs, in particular, are current estimates and will be further refined as projects develop. In recognition of the fact that the scope of each of these projects, as well as cost estimates, may change as we move forward, the Transportation Working Group will meet at least monthly to review project status and proposed changes to scope and costs. As necessary, the Transportation Working Group will recommend to my office changes in the costs set forth below and any proposed reallocation of FTA/FEMA funds. Such a request will be forwarded by me, in writing, to FTA.

I set forth below the information requested in your letter. Project descriptions are brief, additional project scope, schedule, and cost estimate information will be forwarded separately to appropriate FTA and FEMA staff as they work with each sponsoring agency to implement the projects.

a. ***Lower Manhattan Transit Complex***

1. World Trade Center Transportation Hub (including World Trade Center PATH Terminal, pedestrian connections and related infrastructure) (PANYNJ)

***Definition/Cost/Schedule***

Prior to September 11<sup>th</sup>, over 130,000 PATH riders passed through the World Trade Center (WTC) PATH Terminal each day, along with thousands of subway riders using the NYCT stations accessible via the WTC Concourse. This project will restore and enhance the WTC PATH Terminal and pedestrian connections including intermodal transfers on the east to the Fulton Street Transit Center through the latter's underground pedestrian passageway across Church Street. To the west, the WTC PATH Terminal will connect, via an underground pedestrian passageway, across West Street (Route 9A) with the World Financial Center and the World Financial Center Ferry Terminal.

At the lowest level of the World Trade Center site, PATH facilities would be expanded including additional platform capacity to increase efficiency and accommodate future growth. The terminal will include a main entry and many other multi-level indoor connections to surrounding streets, designed to help orient users to the transit connections available within the intermodal terminal. The new transportation hub will facilitate circulation for hundreds of thousands of daily users.

The requested federal funding amount of \$1.4 to \$1.7 billion reflects refinements of project costs and an allocation of potential insurance recoveries by PANYNJ. The total project cost is \$1.7 to \$2 billion in year of construction costs. Environmental review and final design for the WTC Transportation Hub will begin by late 2003 with initial construction starting by late 2004 or early 2005. Phased completion of project components for Downtown PATH Terminal facilities is estimated by late 2007, with other pedestrian connections completed during 2008 and early 2009.

*Status*

Numerous working meetings have taken place with the FTA Lower Manhattan Office to review the project scope and environmental process. PANYNJ is currently performing conceptual design work for the WTC Transportation Hub, and will advance into preliminary engineering in mid-2003.

2. The Fulton Street Transit Center (MTA)

*Definition/Cost/Schedule*

The Fulton Street Transit Center is a rehabilitated, reconfigured, enhanced multi-level, underground complex of subway stations serving nine different lines, with improved platforms, mezzanines and connection corridors and a new central concourse with a new above-ground presence. Over two hundred seventy-five thousand commuter trips are served by these subway stations daily. In addition, this complex will extend westward one block underneath Dey Street to Church Street via a new underground pedestrian passageway providing a new link to two additional subway lines, the WTC PATH Terminal and a future connection to the World Trade Center development site. The estimated cost is \$750 million in year of construction dollars and completion is expected by 2007.

*Status*

Numerous working meetings have taken place with the FTA Lower Manhattan Office to review the project scope, cost estimates and the environmental process. The FTA project management oversight (PMO) consultant is currently reviewing the Transit Center cost estimate with MTA cost estimators and engineers; areas of focus include: core costs, costs related to maintaining subway operations during construction; and provisions in the project budget for costs revisions - in the form of contingencies - as the project advances from conceptual design today, through preliminary engineering later in 2003 and into final design in 2004/5; (estimated completion in 2007 as originally planned.)

At the same time, the MTA has initiated the environmental impact statement required by federal law; and targeted for completion in 2004. As part of the EIS, MTA is working with FTA and FTA's environmental consultant to develop a template and protocol for assessing cumulative impacts in lower Manhattan as the Transit Center is developed along with other lower Manhattan projects. LMDC is coordinating the development of the MTA approach with the other project sponsors of the Transportation Working Group so that the approach will be common to all lower Manhattan transportation projects.

Finally, MTA is preparing a grant application to FTA for the Transit Center project for submission.

a. *South Ferry Subway Terminal (MTA)*

*Definition /Cost/Schedule*

The South Ferry Terminal Station is the replacement of the functionally obsolete single track, 5-car station on the 1/9 subway lines with a full length (ten car), three track, two-platform terminal, with additional entrances and pedestrian connections to the Whitehall N/R station and the new Staten Island Ferry Terminal. The new station will eliminate physical and operational deficiencies of the existing station, which will in turn improve travel time, reduce entrance congestion, upgrade station access to be fully compliant with ADA and improve overall access to lower Manhattan.

The design of the South Ferry Terminal Station includes surface access elements, some of which could be located in Battery Park, under which the subway line passes today. The feasibility of a number of alternatives is being investigated in the environmental and design process to reduce or remove those elements; or to mitigate the impact of those elements consistent with the existing and planned Park features.

The estimated cost is \$400 million in year of construction dollars and completion is targeted for 2007.

*Status*

MTA is currently defining the environmental approach, including a consultant scope of work, to be used for the project in consultation with FTA. A field visit has taken place with FTA staff; and once the grant process has been completed for Transit Center in February, detailed project discussions will commence with FTA including PMO review.

The following projects are estimated to cost \$1.7 to \$2 billion. These projects are in their preliminary stages and individual cost estimates for each project are still under discussion. After consultation with the Transportation Working Group, I will forward estimates and an expected timeline for decision for each project as the WTC site plan development is finalized and these projects are more clearly defined.

b. *Access to regional airports (MTA/PANYNJ)*

*Definition/Cost/Schedule*

Fast, convenient airport links to the region's airports are essential to lower Manhattan's economic recovery as the nation's third largest central business district. This project is to enable future rail service between the airports and lower Manhattan.

*Status*

A number of airport access service alternatives are currently under study. This project will be coordinated with that effort.

*d. Bus Facilities and Street Restoration (PANYNJ)*

*Definition/Cost/Schedule*

Bus Facilities will include essential World Trade Center (WTC) site infrastructure work necessary to support surface transportation elements for the initial phase of WTC site redevelopment, and will be guided by the ongoing WTC site master plan development and WTC memorial development. The WTC site master plan will integrate the lower Manhattan street system. In addition, the September 11<sup>th</sup> memorial will require substantial bus facilities to accommodate millions of annual visitors.

The WTC complex had accommodated vehicular circulation around the site, as well as into the sub-grade of the complex. The future WTC-site redevelopment program will require reconfiguration of roadways and public rights-of-way to support efficient traffic flow while meeting changed site access and security requirements. A sub-grade bus parking facility will be necessary to accommodate the September 11 memorial. Significant infrastructure will be restored to handle on-site bus parking, including ramps, roadways, parking decks, and security infrastructure for pick-up, drop-off, and site access. In addition, this project will include restoration of surface streets on the WTC site, as well as underlying structural support elements.

As a pre-requisite to any permanent construction, WTC site preparation work would include permanent structural reinforcement of slurry walls, demolition of remaining structures, and any required excavation. Appropriate allocations for the cost of WTC site preparation work have been included in this project, as well as the WTC Transportation Hub project. Current cost estimate is \$500 million.

*Status*

The Port Authority, in coordination with the LMDC, is currently performing planning studies on WTC site infrastructure components and expects to advance into preliminary engineering in mid-2003. Final design and construction for the WTC site infrastructure and bus facilities will be performed in conjunction with implementation of the overall WTC site redevelopment and memorial construction. Initial WTC site preparation work, however, will begin in 2004, with street construction and bus facilities to follow.

***e. Improvements to Route 9A/West Street consistent with site redevelopment (NYSDOT)***

***Definition/Cost/Schedule***

NYSDOT is, in cooperation with LMDC and PANYNJ, seeking to permanently restore Rte 9A / West Street. A critical component is the establishment of a safe above-ground pedestrian passage from the WTC site to Battery Park City, the World Financial Center, the waterfront and Battery Park City. FHWA ER funds are only applied to the restoration of the roadway.

The final design of Rte 9A and a functioning pedestrian system is dependent on the final disposition of the WTC. Given peak period pedestrian volumes crossing Route 9A between the WTC Transportation Hub and the World Financial Center, the overall reconstruction plan would integrate at-grade and grade-separated east-west crossings with the PA transit concourse and the Route 9A promenade design, also including proposed commuter bus stops on Route 9A serving WTC and WFC. In combination with the pedestrian concourse described in a.1. above, safe pedestrian access across West Street will be restored. Such restoration will likely occur through the tunneling of some portion of Route 9A. While FHWA funding is available for the roadway no federal recovery program is available to fund the pedestrian needs. Improving pedestrian access both across and along Route 9A, enhances urban design and aesthetics, re-connecting lower Manhattan with Battery Park City through the development of a "promenade" from Liberty Street (the southern end of the WTC site) to Battery Place. This promenade would provide for increased and improved pedestrian activity and streetscaping on the East and West side of Rte 9A. Overall project schedule will be between 2 and 5 years and will be dependent on the pace of WTC site planning efforts.

***Status***

NYSDOT is currently evaluating alternatives in coordination with the WTC site plan development and undertaking preliminary engineering.

***f. Additional transportation infrastructure projects specifically identified in New York City's vision for lower Manhattan***

***Definition/Cost/Schedule***

The following additional projects are specifically identified in New York City's vision for lower Manhattan:

1. Ferry infrastructure: A series of new terminals around lower Manhattan and elsewhere in the region (as required to serve lower Manhattan);
2. East River waterfront improvements (FDR Drive viaduct, Brooklyn Bridge access

- ramps, and Battery Tunnel Plaza): As part of a plan to revitalize the waterfront along the East River, changes to the transportation infrastructure along the waterfront will be examined; and
3. Brooklyn Battery Tunnel decking: To eliminate a current barrier to development formed by the entrance to the Brooklyn Battery Tunnel, a deck that would allow for creation of a new park and residential community.

#### *Status*

Cost and schedule for completion are the subject of ongoing discussions within the Transportation Working Group.

Adequate contingencies are provided in each of the requests for federal funding outlined above. We recognize the importance of closely monitoring and, where possible, reducing costs so as to keep the above projects within the federal allocation. The responsible agencies stand ready to work with FTA staff to address any concerns regarding cost contingencies.

Critical to the success of the above projects will be a team with a proven record of managing complex transportation projects through to completion. New York is fortunate to have such a team in each of the responsible agencies. These individuals have already been working with FEMA and the FTA Lower Manhattan Recovery Office over the preceding months and they will continue to serve as the primary staff contacts as these projects move forward:

#### *MTA-*

William Wheeler, the MTA Director of Special Project Development and Planning will continue to be the official point of contact for the Transit Center and South Ferry projects. Mr. Wheeler reports directly to Katherine Lapp, the MTA Executive Director and Chief Operating Officer. Mr. Wheeler's team includes Mr. Mysore Nagaraja, MTA NYCT Senior Vice President and Chief Engineer who will oversee the design and construction of the Projects and Mr. Gregory Kullberg, the MTA Director of Capital Program Budgets and Grant Management who will oversee the grant management process. This team has worked together on many large MTA capital projects with FTA and PMO staff, and the team is already working with the FTA Lower Manhattan Recovery staff. Mr. Wheeler can be contacted at (212) 878-7258; [wwheeler@mtahq.org](mailto:wwheeler@mtahq.org).

#### *NYSDOT-*

Tim Gilchrist, Director of Planning and Strategy will be the senior contact on the Improvements to Route 9A/West Street project. The project contacts will be Douglas A. Curry, who serves as the Regional Director, R-11 (NYC) and Richard J. Schmalz, Rte 9A Project Director. All of these individuals have extensive experience with large projects and federal funding. Mr. Currey served as the project manager for the original reconstruction of Route 9A.

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Ms. Jennifer Dorn  
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**PANYNJ-**

Anthony Cracchiolo, Director of Priority Capital Programs will be the senior project contact for the WTC PATH Terminal, and Bus Facilities and Street Restoration projects. Tony has extensive experience in successfully implementing multi-billion regional transportation projects involving federally authorized funding and public review processes – most notably the Port Authority's airport access projects (AirTrain JFK and AirTrain Newark). Tony also directs the Port Authority's other Downtown Restoration Projects including the current PATH Restoration construction, WTC site planning work, and WTC site management. A. Paul Blanco, Chief of Regional and Economic Development, will be the Port Authority's representative on federal funding amounts. Paul is coordinating all of the Port Authority's federal reimbursement claims related to the terrorist attacks. Tony and Paul will also be working closely with Frank Lombardi, Chief Engineer, and his architectural and engineering staff on all design and construction matters for the projects.

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The responsible agencies appreciate the need to identify, for budgeting and tracking purposes, the sub-allocation of the FEMA and FTA funds to the individual projects outlined above. They stand ready to discuss this matter in greater detail with FEMA and FTA staff to better understand the eligibility requirements attached to each source of funds.

Coordination of the State's ongoing effort will be spearheaded by my office. The Transportation Working Group will continue to meet on a regular basis to maintain coordination of projects and to identify methods to maximize federal resources. The above represents the State's best estimate of current project scopes and costs. Any required adjustments will be made by my office in coordination with the Transportation Working Group. The point of contact in my office will be Diana Taylor, Deputy Secretary to the Governor, who can be reached at (212)681-2913. The LMDC will also continue to serve in a coordinating role with respect to the transportation improvements undertaken in lower Manhattan.

Thank you, once again, for your ongoing support and assistance in the important task of restoring, rebuilding and revitalizing lower Manhattan in the wake of the September 11 attacks.

Very truly yours,



Mr. Joseph M. Allbaugh  
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Federal Emergency Management Agency  
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Ms. Jennifer Dorn  
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Federal Transit Administration  
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cc: Mayor Bloomberg  
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Peter Kalikow  
Katherine Lapp  
Joseph Seymour  
Joseph Boardman  
Louis Tomson  
Robert D. Jamison  
Brad Gair  
Susan Schrueth  
Deputy Mayor Doctoroff

## **APPENDIX D**

**U.S. Department of Transportation Press Release Placing Lower  
Manhattan Recovery Effort on Priority List**  
*(February 27, 2003)*



**Office of Public Affairs  
U.S. Department of Transportation  
[www.dot.gov/affairs/briefing.htm](http://www.dot.gov/affairs/briefing.htm)**

Thursday, February 27, 2003  
DOT 15e-03  
Contact: Leonardo Alcivar  
Telephone: 202-366-5580

### **U.S. Transportation Secretary Mineta Places Lower Manhattan Recovery Effort on Priority List**

U.S. Transportation Secretary Norman Y. Mineta today announced the selection of the Lower Manhattan Recovery Effort as one of six transportation projects to receive accelerated environmental reviews by a federal task force under President Bush's executive order on environmental stewardship. The decision will help expedite the rebuilding of the transit system in the aftermath of the terrorist attacks on Sept. 11, 2001.

"The Bush Administration is committed to helping New Yorkers recover from the terrorists attacks, and making the process more efficient will reduce the time it takes to rebuild," Secretary Mineta said. "Our initiative on environmental stewardship is a pioneering effort in transportation that will benefit taxpayers and help build a better future for all New Yorkers."

Secretary Mineta underscored the Administration's commitment to environmental stewardship and said the selected projects will be required to comply with the National Environmental Policy Act (NEPA) and all other environmental statutes.

The Department's Federal Transit Administration is administering \$4.75 billion for a wide range of proposed projects to replace, rebuild or enhance the transportation system in lower Manhattan. Projects identified thus far that will benefit from this funding include the Port Authority Trans Hudson (Path) Station at the World Trade Center, the South Ferry Terminal, and the Fulton Street Transit Center.

"As a result of Sept. 11, transit service was severely impacted, disrupting the daily commute of thousands of people who lived, worked and visited one of the largest employment and financial centers in the world. The economic impact was enormous," stated FTA Administrator Jennifer L. Dorn. "By placing the Lower Manhattan recovery projects on the priority list, it not only speeds up the economic recovery, but it also

ensures that the City will reap the benefits of a more environmentally friendly transportation system.”

The Lower Manhattan recovery effort is one of 13 projects on the project priority list created as a result of the President’s Sept. 18 executive order, “Environmental Stewardship and Transportation Infrastructure Project Reviews.” The executive order called for a Cabinet-level task force to ensure that projects are not unnecessarily held up by inefficient review procedures.

The Lower Manhattan recovery effort was one of 70 transportation construction projects nominated for expedited environmental review by governors from around the country, with input from metropolitan planning organizations.

The Cabinet-level task force, which is chaired by Secretary Mineta, will review projects on the priority project list and work to expedite environmental reviews. In addition to Secretary Mineta, the task force members include the U.S. Secretaries of Agriculture, Commerce, the Interior and Defense, as well as the Administrator of the Environmental Protection Agency, Chair of the Advisory Council on Historic Preservation and the Chair of the Council on Environmental Quality.

Administrator Dorn said that the priority project review process reflects the Administration’s commitment to environmental stewardship. All projects on the priority list will be required to comply with the National Environmental Policy Act and all other environmental statutes.

Additional information about the President’s executive order and the project priority list is on the Internet at <http://www.fhwa.dot.gov/stewardshipeo>.

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## **APPENDIX E**

### **Stakeholder Environmental Review Commitments and Responsibilities**

**Table 7 - Stakeholder Environmental Review Commitments and Responsibilities**

<b>Stakeholder</b>	<b>Lower Manhattan Recovery Effort NEPA Responsibilities</b>	<b>Cumulative Effects Analysis Responsibilities</b>
<b>FTA</b>	Lead agency and coordinate project reviews for projects funded under FTA programs, serve as cooperating agency for projects funded other authorities, as appropriate, and provide technical assistance for transit-related projects	Develop cumulative effects analysis approach, provide technical guidance and ensure consistency in approach across project sponsors using FTA funding
<b>FEMA</b>	Lead agency for all projects funded under FEMA programs related to the disaster designated FEMA -1391-DR-NY, serve as a cooperating agency for projects funded under other authorities, as appropriate, and provide technical assistance for National Flood Insurance Program related issues	Develop cumulative effects analysis approach, provide technical guidance and ensure consistency in approach across project sponsors using FEMA funding
<b>FHWA</b>	Lead agency and coordinate project reviews for projects funded under FHWA programs, serve as cooperating agency for projects funded other authorities, as appropriate, and provide technical assistance for road-related projects	Develop cumulative effects analysis approach, provide technical guidance and ensure consistency in approach across project sponsors using FHWA funding
<b>EPA</b>	Cooperating agency and provide technical assistance, as necessary, to ensure air quality, water quality, and hazardous waste standards are evaluated in NEPA documents and other environmental studies in support of NEPA documents, as appropriate	Contribute to the development of a cumulative effects analysis framework and provide technical assistance regarding proposed methodologies; review and comment on cumulative effects analysis evaluation findings
<b>HUD</b>	Cooperating agency for projects funded under non-HUD authorities, as appropriate	Review and comment on cumulative effects analysis methodology and evaluation findings
<b>USACE</b>	Cooperating agency and provide technical assistance, as necessary, in evaluating projects to ensure any U.S. water or wetland impacts are identified, avoided or minimized, and mitigation resolved	Review and comment on cumulative effects analysis methodology and evaluation findings
<b>USCG</b>	Cooperating agency and provide technical assistance, as necessary, in evaluating projects to ensure U.S. navigable waterway needs are met and any bridge impacts are identified and resolved	Review and comment on cumulative effects analysis methodology and evaluation findings
<b>USFWS</b>	Cooperating Agency and provide technical assistance, as necessary, in evaluating projects to ensure threatened and endangered species are identified, any impacts avoided or minimized, and mitigation resolved	Review and comment on cumulative effects analysis methodology and evaluation findings

**Table 7 - Stakeholder Environmental Review Commitments and Responsibilities**

<b>Stakeholder</b>	<b>Lower Manhattan Recovery Effort NEPA Responsibilities</b>	<b>Cumulative Effects Analysis Responsibilities</b>
<b>NMFS</b>	Cooperating Agency and provide technical assistance in evaluating projects, as necessary, to ensure threatened and endangered species and essential fish habitat are identified, any impacts avoided or minimized, and mitigation resolved	Review and comment on cumulative effects analysis methodology and evaluation findings
<b>New York State</b>	Through the Empire State Development Corporation and/or Lower Manhattan Development Corporation pursuant to 42 USC 5304(8) assume federal lead agency responsibilities for environmental reviews for projects funded under HUD community development programs; and upon request of a federal lead agency, will serve as a cooperating agency for projects funded under other authorities, as appropriate.	Review and comment on cumulative effects analysis methodology and evaluation findings
<b>NYSDOT</b>	Project sponsor responsible for project development process including evaluation of alternatives, design and technical analysis as well as preparation and coordination of environmental review documentation with appropriate federal, state, and local agencies and the public	Prepare cumulative effects analysis for inclusion in NEPA documentation in accordance with approved methodology common to Lower Manhattan Recovery Effort transportation projects in consultation and coordination with appropriate federal, state, and local agencies
<b>NYSDEC</b>	Coordinate environmental reviews under NY State environmental regulations.	Provide technical assistance; review and comment on cumulative effects analysis methodology and evaluation findings
<b>SHPO</b>	Coordinate compliance with Section 106 of the National Historic Preservation Act and review of cultural resources impacts	Provide technical assistance; review and comment on cumulative effects analysis methodology and evaluation findings
<b>NYMTC</b>	Provide data and technical assistance during NEPA document preparation; review and comment on NEPA documents	Review and comment on cumulative effect analysis and evaluation findings
<b>MTA</b>	Project sponsor responsible for project development process including evaluation of alternatives, design and technical analysis as well as preparation and coordination of environmental review documentation with appropriate federal, state, and local agencies and the public	Prepare cumulative effects analysis for inclusion in NEPA documentation in accordance with approved methodology common to Lower Manhattan recovery effort transportation projects in consultation and coordination with appropriate federal, state, and local agencies
<b>NYC DEP</b>	Coordinate environmental reviews under CEQR requirements and NYC environmental requirements	Provide technical assistance; review and comment on cumulative effects analysis methodology and evaluation findings
<b>NYCT</b>	Project sponsor responsible for project	Prepare cumulative effects analysis for



**Table 7 - Stakeholder Environmental Review Commitments and Responsibilities**

<b>Stakeholder</b>	<b>Lower Manhattan Recovery Effort NEPA Responsibilities</b>	<b>Cumulative Effects Analysis Responsibilities</b>
<b>NYCT</b>	development process including evaluation of alternatives, design and technical analysis as well as preparation and coordination of environmental review documentaion with appropriate federal, state, and local agencies and the public	inclusion in NEPA documentation in accordance with approved methodology common to Lower Manhattan recovery effort transportation projects in consultation and coordination with appropriate federal, state, and local agencies
<b>Port Authority of NY&amp;NJ</b>	Project sponsor responsible for project development process including evaluation of alternatives, design and technical analysis as well as preparation and coordination of environmental review documentaion with appropriate federal, state, and local agencies and the public	Prepare cumulative effects analysis for inclusion in NEPA documentation in accordance with approved methodology common to Lower Manhattan recovery effort transportation projects in consultation and coordination with appropriate federal, state, and local agencies
<b>NYCDOT</b>	Project sponsor responsible for project development process including evaluation of alternatives, design and technical analysis as well as preparation and coordination of environmental review documentaion with appropriate federal, state, and local agencies and the public	Prepare cumulative effects analysis for inclusion in NEPA documentation in accordance with approved methodology common to Lower Manhattan recovery effort transportation projects in consultation and coordination with appropriate federal, state, and local agencies